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STATE OF MICHIGAN

ECONOMIC REPORT of the Governor

1983

JAMES J. BLANCHARD, Governor

Transmitted to the Michigan Legislature
April 1983

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April, 1983

Dear Members of the Legislature:

I am hereby submitting for your consideration the document entitled *Economic Report of the Governor—1983*, the first such document to be issued during my term of office.

In January, during my State of the State message, I outlined a fiscal recovery plan to eliminate the state's $900 million deficit in the fiscal year that began last October 1, and to begin to reverse years of accounting deviations that have concealed an additional accumulated deficit of $823 million. With the enactment of Public Acts 14 and 15, and legislative approval of Executive Order 1983-5, state government has put itself on sound financial footing for the first time in several years. The men and women in the Legislature who worked diligently for adoption of this program are to be heartily congratulated.

Yet, the state remains mired in a serious economic crisis. Michigan's unemployment rate remains the highest in the nation, and the need for action to diversify the state's economy and provide jobs for the jobless is as urgent as ever.

I will submit in the near future a number of proposals for your consideration designed to put Michigan back to work. I have set in motion the process by which the details of these proposals will be devised, enlisting the advice and counsel of key state departments, members of business, labor, education, agriculture, and others from the private sector. In addition, the advice and counsel of the Legislature will be sought and appreciated.

As you know, my Executive Order 1983-2 establishes a Cabinet Council on Jobs and Economic Development, to be chaired by the Director of the Department of Commerce, Ralph J. Gerson, and to have as its membership several directors of state government departments. Executive Order 1983-3 establishes the private sector Governor's Commission on Jobs and Economic Development, to be co-chaired by Douglas Fraser and Lee A. Iacocca, and consisting of representatives from all sectors of Michigan's economy. These two mechanisms will serve as the principal forums for the development of my economic program.

Even now, however, it is clear that this program will feature the following components:

1) A strategic investment strategy, including a strategic investment bank, to attract new business into this state, and to help keep existing Michigan businesses in Michigan;

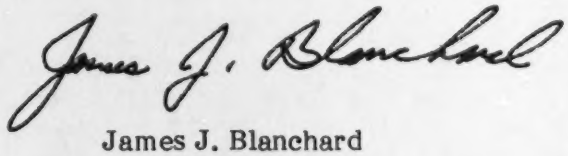
2) A public works and construction program, to put our people back to work, and to make needed repairs in the state's infrastructure; and

3) A comprehensive job training program, which takes full advantage of the federal Job Training Partnership Act, and which provides training for jobs that exist now or will exist in the future.

My Administration will be asking the Legislature to support efforts to address the critical need to find work for our state's young people; to support a "communities of excellence" program which will reward localities that encourage new business activity; and to support efforts to assist small and growing business enterprises, where most new jobs are to be found.

1983 will continue to be a challenging year for all of us in state government, and a challenging year for the people of Michigan. I look forward to all of us working together in the months ahead to begin the process of putting our people back to work and building a bright future for our state.

Sincerely,



James J. Blanchard
Governor

LETTER OF TRANSMITTAL

April, 1983

The Honorable James J. Blanchard
Governor of Michigan
State Capitol
Lansing, Michigan

Dear Governor Blanchard:

It is my pleasure to submit to you this 1983 *Economic Report*. This document highlights significant developments in the state and U.S. economies during 1982, and presents sector analyses and forecasts for 1983. Also included are a summary of relevant Public Acts of 1982, and significant economic events of 1982, as well as a number of historical data series.

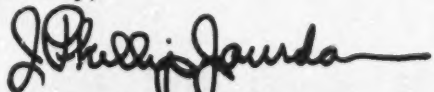
Although consumer prices were finally brought under control in 1982, increasing only 4 percent, most other indicators reflected a very weak Michigan economy. Personal income increased by less than half the rate for the prior year. Its major component, wages and salaries declined slightly in 1982, largely due to an average unemployment rate of 15.5 percent.

It is not likely that 1983 will bring a strong recovery. Although auto sales showed signs of strength in late 1982 and early 1983, high interest rates and record-high unemployment levels will result in very sluggish economic activity for the calendar year. Improvement, however, is expected by the final quarter of the year.

The analyses and forecasts presented in this report are produced by the Office of Revenue and Tax Analysis of the Department of Management and Budget. This office also updates many of the data series presented in the report in the bi-monthly newsletter, *Michigan Economic Review and Outlook*.

Valuable contributions to the report were made by the Michigan Departments of Agriculture, Commerce, Labor, Natural Resources, Transportation, and Treasury; and by the Office of the Budget and Word Processing Center, Department of Management and Budget.

Respectfully,



J. Phillip Jourdan, Director
Department of Management and Budget

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1983
ECONOMIC REPORT

SUMMARY OF 1982 ECONOMIC EVENTS

FIRST QUARTER

ATT Settlement. In an historic action, American Telephone and Telegraph Company settled the Justice Department's eight-year old antitrust suit. ATT agreed to divest its 22 Bell system companies in return for the department's promise to drop the case. ATT will keep its Long Lines long-distance network; its manufacturing arm, Western Electric; and the world-famous Bell Labs.

Polish Debt Bailout. The Reagan administration notified 10 U.S. commercial banks that the U.S. government would pay the banks over $70 million in delinquent Polish principal and interest obligations that had come due in January. In arranging the rescue, the administration bypassed a normal procedure requiring the banks to declare Poland in default before the government guarantee could be called into effect.

UAW Concessions. The United Auto Workers agreed to contract concessions with both Ford and General Motors, trading wage and holiday reductions for job security and profit-sharing guarantees.

OPEC Cuts Output. In a bid to reduce the worldwide surplus of oil and bolster prices, the 13-member Organization of Petroleum Exporting Counties agreed to cut production by about 700,000 barrels a day. The action cut OPEC's output to about 17.5 million barrels a day from 18.2 million. In 1979, at the peak of its production, OPEC was producing an average of 31 million barrels of oil a day.

CPI Down. The consumer price index declined at a seasonally adjusted 0.3 percent in March or at a 3.6 percent annual rate. It was the first monthly drop in the index in 17 years and the largest since a 0.4 percent decline in November, 1953. Among the factors contributing to the slowdown: the recession; a world surplus of crude oil; rebates on cars and trucks; and the Federal Reserve Board's tight control on money supply growth.

Recession Continued. The nation's real gross national product, the economy's total output of goods and services, declined at a seasonally adjusted annual rate of 5.1 percent in the first quarter of 1982.

SECOND QUARTER

Drysdale Default Shook Wall Street. Wall Street was stunned May 18 by the announcement that Drysdale Government Securities Inc., a new

brokerage firm that specialized in the trading of government securities had defaulted on the payment of $160 million in interest the day before.

Oil and Gas Equipment Embargo. President Reagan widened an earlier ban on U.S. sales of oil and natural gas equipment to the Soviet Union. The decision prohibited sales of equipment produced by foreign subsidiaries and licensees of U.S. companies. The earlier move, in December, 1981, had barred the export of goods made in the U.S. for use in building the European-Siberian gas pipeline.

Due-on-Sale Clause Legal. Mortgage transfers can be blocked by federally-chartered savings and loan institutions, the Supreme Court ruled. The decision will enable thrifts to raise interest rates or begin foreclosure proceedings on a house for which a mortgage was assumed in disregard of a due-on-sale clause. Such clauses usually require a mortgage to be paid when property is transferred.

GNP Increase. The nation's real GNP rose at a seasonally adjusted annual rate of 2.1 percent in the second quarter, largely a result of a slowing of inventory reduction by businesses.

THIRD QUARTER

Penn Square Insolvent. Federal regulators closed Penn Square Bank, one of the biggest energy-related lenders in the Southwest, declaring it insolvent because of large loan losses. The failure of the bank sent shock waves through the nation's financial system as other banks that had bought loans from Penn Square and uninsured depositors stood to suffer losses. Penn Square failed because some of its many loans to oil and gas producers were under-collateralized and became uncollectible.

Steel Price Violations. The American subsidiary of one of Japan's largest steel exporters, Mitsui Co., pleaded guilty to charges of fraud and conspiracy in selling steel below the allowable U.S. prices.

Federal Tax Increase. Congress approved a $98.3 billion tax-increase bill. Some $50 billion of the increase would come from business taxes, $18 billion from higher taxes on individuals, and $21 billion from stricter compliance measures for existing taxes. The changes include: instituting withholding on interest and dividends; reducing medical expense and casualty loss deductions; requiring employees to report tips; increasing the cigarette tax from 8¢ to 16¢ per pack; increasing the excise tax on telephone services; and increasing aviation taxes.

Bendix Takeover Bid. Allied Corporation announced that it had acquired Bendix Corporation for $1.9 billion and that it had struck an agreement with Martin Marietta to allow that company to remain an

independent concern. The deals ended a 31-day fracas characterized as among the most bizarre takeover battles in history.

Economic Stagnation. Real GNP increased a slight 0.7 percent in the third quarter as the economy continued to stagnate.

State Budget Slashed. The state budget was cut repeatedly in the fiscal year ending September 30, 1982. The cuts were forced by declining tax revenues as Michigan stayed in a seemingly endless and bottomless economic tailspin. The budget was cut four times by a total of $778 million.

Deficit Exceeds $100 Billion. The Reagan administration reported a record $110.7 billion budget deficit for fiscal 1982, the first full year of President Reagan's tenure. The previous record was a $66.4 billion deficit in fiscal 1976. The deficit in 1981 was $57.9 billion.

FOURTH QUARTER

Dollar Soared. The dollar reached all-time highs against the currencies of France, Italy, and Norway. The highs were attributable to a small increase in short-term U.S. interest rates and international financial and political turmoil.

Monetary Policy Eased. The Federal Reserve Board eased its tight money policy and interest rates dropped significantly. The Fed's tight money policy had kept interest rates high and stifled economic recovery from the recession that had begun in July, 1981.

Stock Market Volatility. As interest rates came down, investors on the New York Stock Exchange responded by trading huge volumes of stock that broke records set during frenzied trading in August. The Dow Jones Industrial average of 30 blue-chip stocks reached its highest level in 18 months and topped 1,000 in early October. On October 26, stock prices plunged, pushing the Dow Jones Industrial Average down 36.33 points, its largest one-day loss since the record 38.33 plunge of October 28, 1929. On November 3, the Industrial Average posted its largest one-day gain, 43.41 points and closed at a record 1,065.49, the highest since January 11, 1973.

Steel Dispute Settled. The U.S. government reached an agreement with the European community on a plan to limit European exports of steel to the U.S., settling a dispute that had clouded relations between the U.S. and Europe.

Embargo Lifted. President Reagan announced the lifting of sanctions against U.S. and foreign companies selling U.S.-developed technology for use in the European-Siberian natural gas pipeline.

Toxic Waste Cleanup. The Environmental Protection Agency identified 418 hazardous waste dumps as priority sites for a nationwide cleanup under the "Superfund" law. A $1.6 billion fund for a five-year cleanup program was enacted by Congress in 1980. Almost one-fourth of the sites were in New Jersey and Michigan.

Gasoline Tax Increase. In the closing days of the 97th session, Congress approved the gasoline tax increase. The measure increased the federal tax on gasoline and diesel fuel a nickel per gallon to finance repair of the nation's roads, bridges, and transit systems. The tax-hike was expected to bring in $5.5 billion a year and the repair program was expected to provide an estimated 320,000 jobs.

Auto Production Slump. Domestic auto makers slashed auto output to its lowest point in 24 years. The industry produced an estimated 5.1 million cars in 1982--the lowest total since 1958 when only 4.2 million cars were assembled.

Steel Output Lowest Since 1946. Total U.S. production of steel in 1982 was the lowest in 36 years. Through December 31, U.S. steelmakers produced 72.6 million tons, down 38.4 percent from 1981 production of 117.9 million tons. Production in 1946 totaled 66.6 million tons.

Record Unemployment. The unremitting recession threw a record number of workers out of work in 1982. The nation's unemployment rate rose to a seasonally adjusted 10.8 percent in December. The figure was the highest since 1940 when the average for the year was 14.6 percent. Over 11 million individuals were out of work. In Michigan, the rate rose to 17.6 percent in December, the highest since figures have been kept. By the end of the year, some 746,000 Michigan residents were out of work, more than the populations of six states.

Inflation Rate. The U.S. Consumer Price Index (CPI) rose by 6.1 percent in 1982, the lowest inflation rate since wage and price controls were lifted 10 years ago, because of significant slowdowns in wage costs and in food, energy, and housing prices. The Detroit CPI rose by 4 percent.

U.S. Economic Performance. The U.S. economy turned in its worst performance since 1946 last year. The nation's real gross national product fell 1.8 percent in 1982, capping a stretch of no growth unequaled since the Great Depression. Real GNP was lower than in 1979, 1980, and 1981 even though the population grew by 7 million during the period.

SUMMARY OF 1983 ECONOMIC FORECAST

In 1983, both the U.S. and Michigan economies are expected to break the grasp of the recession and begin to recover. This increase in economic activity will be led by an increase in consumer spending resulting from an increase in real income, low inflation, low interest rates, and a federal government tax cut at midyear.

In the U.S. economy, these developments are expected to generate a 1.7 percent increase in real GNP following a decline of 1.7 percent in 1982. The improvement in the consumer spending environment will help boost auto sales 10.3 percent to 8.8 million units. Imports are expected to account for 28.2 percent of total auto sales, up slightly from the 27.8 percent share in 1982. U.S. motor vehicle production is forecast to rise 19.4 percent to 8.3 million units in response to the increase in sales. Lower mortgage rates and rising real incomes are expected to stimulate an increase in housing starts from 1.1 million units in 1982 to 1.3 million in 1983. The unemployment rate is projected to average 11.1 percent in 1983, which is up from the 9.7 percent jobless rate in 1982. The unemployment rate is forecast to peak in the first quarter of 1983 at 11.2 percent and decline to 10.9 percent by the fourth quarter.

TABLE 1
U.S. Economic Forecast Summary

	1982	1983 Forecast	Percent Change
Real GNP (Billions of 1972 Dollars)	$1,476	$1,501	1.7
Auto Sales (Millions)	7.98	8.80	10.3
Import Share (Percent)	27.8	28.2	--
Motor Vehicle Production (Millions)	6.95	8.30	19.4
Housing Starts (Millions)	1.1	1.3	18.2
Unemployment Rate (Percent)	9.7	11.1	--

The increase in consumer spending is also expected to bring relief to Michigan's battered economy. The increase in motor vehicle sales nationally is expected to increase motor vehicle production in Michigan 20 percent to 2.84 million units. This increase in production along with other general improvements in the economy are expected to boost employment 1.3 percent to 3.7 million people, and the unemployment rate is projected to average 14.8 percent. The rise in employment coupled with a modest increase in average earnings are expected to produce a 6.3 percent increase in personal income, which in real terms will amount to a gain of 1.7 percent.

TABLE 2
Michigan Economic Forecast Summary

	1982	1983 Forecast	Percent Change
Real Personal Income (Billions of 1967 Dollars)	$ 35.7	$ 36.3	1.7
Motor Vehicle Production (Millions)	2.36	2.84	20.3
Employment (Thousands)	3,632	3,680	1.3
Unemployment Rate (Percent)	15.5	14.8	--
Detroit CPI (1967=100)	288.3	301.3	4.5

SUMMARY OF NATIONAL ECONOMIC POLICY

1982 Developments

The economic recovery that most economists expected to begin in the summer of 1982 never materialized despite a dramatic slowdown in the rate of inflation and the 10 percent federal tax cut in July. The recovery was delayed for a variety of reasons.

- The Federal Reserve Board (Fed) maintained a very restrictive monetary policy in the first half of the year, keeping nominal interest rates at high levels.

- Real interest rates remained at historically high levels throughout 1982, even after nominal rates fell sharply in the second half of the year.

- Inventory liquidation depressed the economy in the first half of the year as inventories which piled up when final demand began to fall were worked off.

- Consumer confidence was low due mainly to rising unemployment and consumer spending remained weak even as the consumer's ability to spend increased. The 10 percent federal tax cut did not stimulate the economy as much as expected because the major share of the reduction was saved.

- Capital spending remained very weak due to record low capacity utilization and weak profits.

- The strong U.S. dollar relative to other currencies slowed exports and increased competition from imports.

- State and local government spending which generally cushions a downturn, weakened as the poor economy depressed revenues.

- Business undertook extremely widespread and severe cost-cutting measures which kept downward pressure on employment.

Real gross national product (GNP) declined at an annual rate of 1.6 percent in the first half of 1982. There was a small increase in real GNP in the second quarter due mainly to a slowdown in the rate of decline in business inventories. The rate of inflation as measured by the GNP implicit price deflator rose at an annual rate of only 4.4

percent compared with a 9.4 percent increase in 1981. Interest rates were the major influence on economic activity in the first half of the year. They remained high due to tight monetary policy and concern about large federal deficits. The growth in the money supply (M1) from January to July was only about one percent and long-term interest rates remained between 14 and 15 percent. High interest rates had a particularly depressing effect on the housing and auto markets. Private housing starts were less than one million units at an annual rate and new passenger cars sold at a rate of only 7.9 million units in the first half of 1982.

The economy continued to stagnate in the second half of the year as real GNP declined at an annual rate of about 0.9 percent; however, several favorable developments occurred that could lay the groundwork for a recovery in 1983. The Fed eased monetary policy in the second half of 1982; the discount rate was reduced from 12 percent to 8.5 percent and the money supply (M1) increased at an annual rate of more than 15 percent during the last five months of the year. Both long- and short-term market rates fell from 3 to 5 percentage points in the July to October period. The fall in interest rates began to have a favorable impact on the economy in the latter months of the year, particularly in the interest-sensitive auto and housing sectors. New passenger cars sold at an annual rate of 8.2 million units in the second half of the year and 8.6 million units in the last quarter. Sales were stimulated by interest subsidies offered by the automakers, but there also appeared to be a basic improvement in auto sales. Private housing starts averaged 1.2 million units at an annual rate in the second half of the year, compared with an annual average of 0.9 million units in the first half of the year.

Inflation continued under control as the GNP price deflator increased at an annual rate of less than five percent in the last two quarters of 1982; however, consumer spending failed to respond to lower inflation, falling interest rates, and the federal tax cut. Consumer reluctance to spend can be traced to the continued rise in unemployment to a rate of almost 11 percent at year end and the high level of real interest rates despite the fall in nominal rates. Although the long-awaited economic recovery was stalled by weak consumer spending, the recession appeared to have bottomed out in the fourth quarter.

1983 Outlook

The economic progress made in the last quarter of 1982 is expected to continue during 1983. Nevertheless, the pace of the recovery will be slower than in previous recovery periods, particularly in the first two quarters of the year, as unemployment and real interest rates will continue high throughout the year. The forces for recovery are impressive and should begin to have favorable impact in the second half of the year. Positive factors in the forecast include the following.

- The outlook for inflation is very promising, even if an economic recovery begins. Food and energy price increases will remain modest, workers will continue to make moderate demands for wage increases, productivity will continue to improve and excess capacity will dampen inflationary pressures.

- The household financial position has improved. Real incomes are now rising, the household debt burden has fallen, and the strong stock market has increased household wealth.

- Fiscal policy will be highly stimulative. The 10 percent federal tax cut scheduled for July will increase disposable income and in turn, consumer spending.

- Business profits are poised for a sharp recovery due to cost-cutting and reduction of inventories.

- The Federal Reserve Board will continue to emphasize bringing down interest rates and stimulating economic activity by relaxing its former policy of tight control of the money supply.

- Lower interest rates will stimulate housing and auto sales and a declining U.S. dollar will improve the trade balance.

- Unemployment should stabilize in the first half of the year and begin to fall in the last two quarters of the year. This will improve consumer sentiment as well as personal income and stimulate consumer spending.

The major negatives in the forecast are the federal deficit, continued high unemployment, and high real interest rates.

The federal deficit is likely to approach $200 billion in fiscal year 1983 and 1984. The major problem is that financial market concern about the deficit may keep long-term and consumer interest rates from falling much further. In actuality, there is little danger of competition between public and private borrowing pushing up interest rates in 1983 because the weak recovery will dampen private borrowing needs; however, the lack of experience with such huge deficits creates considerable uncertainty about the economic outlook. In addition, the deficit makes it more difficult for the Fed to push down interest rates and increases pressure for additional tax increases. The federal cigarette tax increased 8 cents per pack on January 1, 1983; the federal gasoline tax increased 5 cents per gallon on April 1, 1983; and there is additional pressure for social security and other tax increases to reduce the size of the deficit. The recession has also created considerable pressure for tax increases at the state and local level. These increases will partly offset the stimulative effects of the 10 percent reduction in federal income taxes.

Most forecasters are expecting consumer spending to lead the economic recovery; however, this may not occur if consumers continue to be concerned about high unemployment and high real interest rates. This is the major factor that could delay the expected recovery in 1983.

The most likely outcome is that 1983 will be a transition year between the severely depressed 1982 economy and the noninflationary growth expected by most forecasters in 1984. A resolution of the fiscal policy dilemma would increase consumer and business confidence and pave the way for a robust economic recovery beginning this year. Unfortunately, the reality of fiscal policy is such that observers are cautious about 1983 and uncertain about 1984.

THE MICHIGAN ECONOMY

- Employment and Unemployment
- Personal Income
- Prices
- Consumer Spending
- State and Regional Comparisons
- Population

EMPLOYMENT AND UNEMPLOYMENT

1982 Developments

In 1982, Michigan's labor market suffered through the worst year since the 1930s. Total employment fell to the lowest level since 1976 and the unemployment rate and the number of unemployed reached record levels. The U.S. unemployment rate also reached the highest level since 1941. Manufacturing employment in Michigan was hardest hit as motor vehicle sales and production dropped to the lowest level in two decades.

Michigan's average annual labor force declined from 4,301,000 in 1981 to 4,296,000 in 1982, down 0.1 percent. (See Table 3.) Most of the drop in the labor force may be attributed to declines in employment, as the number of employed individuals fell 3.7 percent from 3,773,000 in 1981 to 3,632,000 in 1982. Due to widespread layoffs and declining employment opportunities, the number of jobless workers for the same period increased from 528,000 to 664,000, up 25.8 percent. Given the dip in the labor force and surge in the number of unemployed workers, Michigan's annual average unemployment rate (i.e. the percent of the labor force actively seeking employment) jumped to an average of 15.5 percent in 1982, from 12.3 percent 1981.

An increase in the number of unemployed workers can result from workers losing their jobs or from an increase in the labor force without a commensurate increase in jobs. During the past five recessions, unemployment rose nationally due to both a decrease in employment and an increase in the labor force; however, in Michigan, unemployment has tended to rise due only to declines in employment, as the labor force has either remained flat or declined. In 1982, unemployment rose by 136,000 due to a decrease of 141,000 in the number employed. Unemployment did not rise by as much as employment declined because the labor force contracted by 5,000 people. This decline in the labor force resulted directly from the severe impact the recession had on Michigan's economy, which caused many job seekers to become discouraged and drop out of the labor force.

These developments in the Michigan labor market during 1982 were very similar to the changes that occurred in previous recessionary years. (See Table 4.) During the recessions in 1958, 1961 and 1980, unemployment rose due entirely to a decline in employment. Only during the 1973-75 recession did both a decrease in employment and an increase in the labor force contribute to the increase in unemployment.

Michigan's unemployment rate has remained at double-digit levels since 1980. Although the number of unemployed workers declined

TABLE 3
Michigan Labor Force and Employment, 1979-1983
(Thousands)

	1979	1981	1982	1983[1]	Percent Change 1981-82	Percent Change 1982-83
Total Labor Force	4,313.0	4,301.0	4,296.0	4,319.9	-0.1	0.6
Employment	3,978.0	3,773.0	3,632.0	3,680.1	-3.7	1.3
Unemployment	335.0	528.0	664.0	639.8	25.8	-3.6
Unemployment Rate	7.8	12.3	15.5	14.8	26.0	-4.5
Wage and Salary Employment	3,637.0	3,377.7	3,214.2	3,225.6	-4.8	0.4
Manufacturing	1,160.1	977.7	874.9	865.0	-10.5	-1.1
Durable Goods	935.1	780.5	688.4	675.5	-11.8	-1.9
Nondurable Goods	225.0	197.2	186.5	189.5	-5.4	1.6
Nonmanufacturing	1,855.9	1,782.3	1,729.0	1,742.0	-3.0	0.8
Construction	139.5	103.0	86.9	88.0	-15.6	1.3
Trans., Comm & Utilities	160.6	144.8	136.9	128.9	-5.5	-5.8
Wholesale Trade	170.4	158.6	150.2	152.2	-5.3	1.3
Retail Trade	590.9	554.7	532.4	539.6	-4.0	1.4
Finance, Ins., & Real Estate	154.5	154.0	151.4	150.8	-1.7	-0.4
Services	626.8	655.1	661.6	673.0	1.0	1.7
Mining	13.2	12.1	9.6	9.5	-20.7	-1.0
Government	621.0	617.7	610.3	618.6	-1.2	1.4

[1]Estimate.

Source: Michigan Employment Security Commission.

TABLE 4
Unemployment, Employment and Labor Force Changes During Selected Recessionary Years
(Thousands)

Period	Employment	Labor Force	Unemployment[1]
1957-58	-244.6	-28.2	216.4
1960-61	-102.9	-2.8	100.1
1973-75	-173.0	90.0	263.0
1979-80	-222.0	-23.0	199.0
1981-82	-141.0	-5.0	136.0

[1]The change in unemployment equals the absolute value of the change in employment minus the change in the labor force.

Source: Compiled by the Michigan Department of Management and Budget based on data from the Michigan Employment Security Commission.

slightly from 534,000 in 1980 to 528,000 in 1981, it swelled to 664,000 in 1982. The duration of economic weakness in Michigan has kept the number of jobless persons in the state above the half-million mark for three consecutive years. Over this period, a growing number of Michigan's unemployed have exhausted their unemployment benefits since regular benefits cover a maximum of 26 weeks and extended benefits cover an additional thirteen weeks. Table 5 illustrates the declining percentage of the unemployed who qualify for benefits. A comparison of the first half of 1981 with the second half of 1982 reveals that the percentage of unemployed receiving regular benefits declined from 38 percent to 31 percent, and those receiving extended benefits declined from 12.3 percent to 8.6 percent. Fortunately for the jobless, supplemental federal benefits were made available in September, 1982. Without these additional benefits, even more unemployed individuals would have been forced to seek other government aid programs.

In December 1982, 43,473 unemployed parents with dependent children received public aid, up 15.2 percent from the previous year.

Although Michigan's annual average unemployment rate reached 15.5 percent, the jobless rate varied in selected Michigan labor markets. As shown in Table 6, Flint experienced the highest unemployment rate of 20.7 percent, followed by the upper peninsula with a 19.2 percent rate. The lowest unemployment rates shown in the table include Kalamazoo and Ann Arbor with rates of 11 and 11.1 percent, respectively. Thus, the range of unemployment rates for these selected labor markets spanned over 9.7 percentage points in 1982.

TABLE 5
Michigan Unemployed and Unemployment Beneficiaries, 1980-1982
(Thousands)

Period	Average Number Unemployed	Average Claiming U.I. Benefits: Regular Number	Regular Percent of Unemployed	Extended Number	Extended Percent of Unemployed	Federal[1] Number	Federal[1] Percent of Unemployed
1980							
Jan.-June	523.5	311.5	59.5	65.8	12.6	----	----
July-Dec.	543.8	255.1	46.9	70.6	13.0	----	----
1981							
Jan.-June	539.3	205.3	38.0	66.2	12.3	----	----
July-Dec.	517.5	178.8	34.6	36.9	7.1	----	----
1982							
Jan.-June	662.7	253.5	38.3	65.2	9.8	----	----
July-Dec.	665.3	206.5	31.0	57.0	8.6	65.3	9.8

[1]Effective September, 1982.

Source: Michigan Employment Security Commission.

Labor market statistics for Michigan are compared with the Detroit SMSA in Table 7. This table illustrates that Detroit has experienced a higher unemployment rate than the rest of Michigan since 1980. While Detroit's unemployment rate reached 15.9 percent in 1982, the average rate for areas outside Detroit was 15.1 percent. In addition, employment in Detroit fell from an annual average of 1,737,500 in 1981 to 1,661,800 in 1982, down 4.4 percent, compared with a drop of 3.7 percent in employment at the state level for the same period. Employment growth in the Detroit area was severely constrained due to the heavy reliance on manufacturing jobs, 26.8 percent of the total in 1982 compared with the statewide average of 27.2 percent.

Wage and Salary Employment

Wage and salary employment, another measure of employment which excludes agricultural and self-employed workers, dipped in 1982, following the downward trend experienced since 1979. In June, 1979, wage and salary employment reached a peak of 3,700,700 employees. Thereafter, it declined until the second quarter of 1981 when it turned up slightly from 3,363,300 in the first quarter to 3,408,500 in the second quarter; however, in the third quarter of 1981, it resumed its downward trend and fell to 3,369,700 workers. In 1982, wage and salary employment recorded an annual average of 3,214,200 employees, down 4.8 percent from 1981. The sections and tables that follow present a detailed examination of wage and salary employment in the manufacturing, nonmanufacturing and government sectors of the economy.

Manufacturing Employment

Throughout the recession, a large portion of the job loss has occurred in manufacturing as purchases of autos, houses, appliances, and other durable goods are particularly sensitive to high interest rates. Although interest rates fell in the last few months of 1982, they remain high relative to historic levels, and continue to constrain goods-producing industries.

Manufacturing employment plummeted to 874,900 in 1982, down 10.5 percent from 1981. (See Table 8.) The drop in manufacturing employment accounted for 62.9 percent of the total decline in wage and salary employment in 1982. Since 1979, manufacturing employment has declined by 24.6 percent.

While employment declined in both the durable and nondurable industries, in 1982, durable goods bore the brunt of the decline, dropping by 11.8 percent compared with a drop of 5.4 percent for nondurable goods. Motor vehicles, and nonelectrical machinery, the two largest sectors of durable goods, declined by 8.9 percent and 14.8 percent, respectively.

TABLE 6
Michigan Labor Market Unemployment Rates, 1980-1982
(Percent)

	1980	1981	1982
Ann Arbor	8.1	8.6	11.1
Battle Creek	11.5	11.0	15.7
Flint	17.6	15.1	20.7
Grand Rapids	8.3	9.1	11.8
Kalamazoo	8.3	8.7	11.0
Lansing-East Lansing	10.4	10.8	12.9
Upper Peninsula	12.2	13.3	19.2

Source: Michigan Employment Security Commission.

TABLE 7
Detroit SMSA and Balance of State Employment, 1980-1982
(Thousands)

	Labor Force	Employment	Unemployment	Unemployment rate
1980				
Detroit SMSA	2,015.1	1,752.0	263.1	13.1
All Others	2,274.9	2,004.0	270.9	11.9
Michigan	4,290.0	3,756.0	534.0	12.4
1981				
Detroit SMSA	1,995.5	1,737.5	258.0	12.9
All Others	2,305.5	2,035.5	270.0	11.7
Michigan	4,301.0	3,773.0	528.0	12.3
1982				
Detroit SMSA	1,974.9	1,661.8	313.1	15.9
All Others	2,321.1	1,970.2	350.9	15.1
Michigan	4,296.0	3,632.0	664.0	15.5

Source: Michigan Employment Security Commission.

TABLE 8
Michigan Manufacturing Industry Employment, 1980-1982
(Thousands)

	1980	1981	1982	Percent Change 1981-82
Total Manufacturing	998.9	977.7	874.9	-10.5
Durable Goods	795.0	780.5	688.4	-11.8
Lumber, Wood	11.6	10.7	9.7	-9.3
Furniture, Fixtures	23.0	22.7	21.8	-4.0
Primary Metals	67.3	64.5	49.4	-23.4
Fabricated Metals	118.0	114.1	99.0	-13.2
Nonelectric Machinery	158.4	157.1	133.8	-14.8
Electric Machinery	34.9	32.8	29.4	-10.4
Motor Vehicles	326.3	324.2	295.4	-8.9
Other Transportation	13.9	15.5	15.7	1.3
Other Durables	41.6	36.3	34.2	-5.8
Nondurable Goods	203.9	197.2	186.5	-5.4
Food, Kindred	48.8	45.9	45.7	-0.4
Textiles, Apparel	19.2	19.4	17.1	-11.9
Paper	21.6	21.6	20.7	-4.2
Printing, Publishing	33.2	32.5	30.7	-5.5
Chemicals, Petroleum	47.5	46.1	43.4	-5.9
Other Nondurables	33.6	31.7	28.9	-8.8

Source: Michigan Employment Security Commission.

Nonmanufacturing

Nonmanufacturing employment declined from 1,782,300 in 1981, to 1,729,000 in 1982, down 3 percent. (See Table 9.) Trends in services and retail trade contributed most to this change in employment as they were the largest nonmanufacturing categories. The service industry was less affected by the recession and it was the only sector where employment grew over the previous year. Thus, the service industry shielded the nonmanufacturing sector from larger declines.

Retail trade, the second largest nonmanufacturing sector in terms of employment, declined by 4 percent from 1981. Other industries experiencing greater losses in employment included mining, down 20.7 percent, and construction, down 15.6 percent. Construction activity suffered from historically high mortgage rates, which averaged 16.7 percent in 1982, and a weak economy. Since 1979, construction employment has declined 37.7 percent.

TABLE 9
Michigan Nonmanufacturing Industry Employment, 1980-1982
(Thousands)

	1980	1981	1982	Percent Change 1981-82
Total Nonmanufacturing	1,816.1	1,782.3	1,729.0	-3.0
Construction	116.8	103.0	86.9	-15.6
Mining	12.5	12.1	9.6	-20.7
Trans., Comm., & Util.	152.2	144.8	136.9	-5.5
Wholesale Trade	161.5	158.6	150.2	-5.3
Retail Trade	572.1	554.7	532.4	-4.0
Finance, Ins., & Real Estate	156.5	154.0	151.4	-1.7
Services	644.5	655.1	661.6	1.0

Source: Michigan Employment Security Commission.

Government

Public employment, another major sector of the Michigan economy, comprised 19 percent of wage and salary employment in 1982.

TABLE 10
Michigan Government Employment, 1980-1982
(Thousands)

	1980	1981	1982	Percent Change 1981-82
Total Government	627.8	617.7	610.3	-1.2
Federal	58.2	56.5	56.7	0.4
State	152.3	148.7	143.5	-4.0
Local	417.3	412.5	410.1	-0.6

Source: Michigan Employment Security Commission.

The number of workers employed by government fell from 617,700 in 1981 to 610,300 in 1982, down 1.2 percent. (See Table 10.) Local government employment, the largest government employer, fell to

410,100, down 0.6 percent from 1981. State government employment including universities, also declined to 143,500, down 4 percent in 1982. State and local government employment declined due to layoffs as public officials slashed spending to balance budgets. Federal government employment rose 0.4 percent above the 1981 level.

1983 Outlook

The employment outlook is expected to improve slightly in 1983, to 3,680,100, up 1.3 percent. This higher level of employment combined with a 0.6 percent growth in the labor force will translate into an unemployment rate of 14.8 percent, down 0.7 percentage points from 1982. The fall in the jobless rate is projected to occur gradually in 1982, dropping below the 1982 jobless rate by the second quarter to a rate of 15 percent, and then falling to 14.3 percent in the third quarter and to 13.7 percent in the fourth quarter. Even with these improvements, however, the 1983 average annual unemployment rate will be nearly double the 1979 jobless rate of 7.8 percent. An improvement in the unemployment rate tends to lag the recovery as employers usually increase the employee work week before hiring new workers. As employers become confident of a lasting recovery, they begin to recall laid off employees. Thus, major improvement in the unemployment rate will occur later in the recovery.

In 1983, wage and salary employment is expected to increase only 0.4 percent to 3,225,600; however, manufacturing employment is forecast to fall 1.1 percent below the previous year average. Motor vehicle employment, the largest component of manufacturing, is expected to rebound moderately as auto sales improve at the national level. Given an auto sales projection of 8.3 million units, motor vehicle employment is forecast to rise from an annual average of 295,400 in 1982 to 300,700 in 1983. While motor vehicle employment is expected to improve slightly, other durable employment is expected to decline. Despite little improvement in durable employment, nondurable employment is expected to grow by 1.6 percent to 189,500.

Nonmanufacturing employment is projected to climb by 0.8 percent in 1983 to 1,742,000. The trade and service industries are expected to move ahead first as these sectors show less tendency to follow a cyclical pattern. Construction employment is expected to increase for the first time since 1979 as lower mortgage rates begin to revive the housing industry. Increased state and federal financing for transportation will also increase employment in the construction industry. Total nonmanufacturing employment should exceed the 1982 average by the second half of 1983.

Finally, government employment is forecast to grow by 1.4 percent, although state government has proposed more layoffs in the early months of 1983 to reduce the projected deficit.

PERSONAL INCOME

1982 Developments

The Michigan economy suffered through a third consecutive year of weak economic growth, as the worst recession since the 1930s continued unabated. Personal income, which is the total amount of income received by individuals, rose only 3.6 percent to $102.9 billion in 1982. Only twice in the past 22 years has growth in nominal personal income been at a more depressed rate—in 1970 it grew only 3.2 percent and in 1961 it declined 0.3 percent. (See Table 11.) While these figures portray a very weak economy, they hide the true extent of the weakness. After adjusting for inflation, or in real terms, Michigan personal income actually declined 0.4 percent in 1982. This decline marks the fourth consecutive year that real personal income has decreased. (See Table 12.) Since 1978, Michigan real personal income has declined 10.9 percent, an event that has not occurred since the Great Depression. To further illustrate the extent of the recent contraction in economic activity in Michigan, real personal income in 1982 was less than real personal income in 1973.

Personal income is derived from many sources. Wages and salaries earned by persons is the major source of personal income. Other income sources include the income earned by people who own their own business and income from investments in the form of interest, dividends and rent. In addition, people who are unemployed or disadvantaged in some other way, may receive unemployment benefits, welfare, or some other government transfer payment. Each of these sources of income are analyzed below. Also, Table 13 presents a breakdown of personal income, by major components, for 1982.

Wage and salary disbursements actually declined 0.3 percent to $60.7 billion in 1982. In real terms, this represents a decline of 4.2 percent. This depressed level of wages and salaries in 1982 can be traced to three major factors. First, the number of people earning wages and salaries decreased from 3,377,700 in 1981 to 3,214,200 in 1982, a decline of 4.8 percent. Second, the average number of hours worked per week by workers in the manufacturing industries declined slightly to 40.2 hours, which held down the earnings of the people still working in these industries. A third factor which held down the amount of wages and salaries generated in 1982 was that workers in a number of industries, most notably the automobile industry, agreed to reduce their pay levels. The net effect of this last factor may be small, for without pay concessions the number of people employed would surely have been down even more.

TABLE 11
U.S. and Michigan Personal and Per Capita Income, 1950-1982

Year	Michigan Personal Income (Millions)	Percent Change	U.S. Personal Income (Millions)	Percent Change	Michigan Per Capita Income	Percent Change	U.S. Per Capita Income	Percent Change	Michigan Per Capita Income As Percent of U.S. Per Capita Income
1950	$10,811	13.6	$ 225,684	10.1	$1,687	12.2	$1,492	8.3	113.1
1951	12,066	11.6	252,485	11.9	1,857	10.1	1,647	10.4	112.8
1952	12,908	7.0	268,983	6.5	1,941	4.5	1,728	4.9	112.3
1953	14,663	13.6	284,866	5.9	2,149	10.7	1,800	4.2	119.4
1954	14,257	-2.8	286,953	0.7	2,018	-6.1	1,781	-1.1	113.3
1955	15,825	11.0	307,601	7.2	2,172	7.6	1,872	5.1	116.0
1956	16,472	4.1	329,933	7.3	2,206	1.6	1,972	5.3	111.9
1957	16,917	2.7	348,309	5.6	2,235	1.3	2,044	3.7	109.3
1958	16,602	-1.9	358,913	3.0	2,165	-3.1	2,061	0.8	105.0
1959	17,625	6.2	382,548	6.6	2,269	4.8	2,160	4.8	105.0
1960	18,328	4.0	398,843	4.3	2,339	3.1	2,216	2.6	105.6
1961	18,281	-0.3	414,285	3.9	2,316	-1.0	2,264	2.2	102.3
1962	19,560	7.0	440,023	6.2	2,466	6.5	2,369	4.6	104.1
1963	20,887	6.8	462,406	5.1	2,592	5.1	2,454	3.6	105.6
1964	22,904	9.7	495,188	7.1	2,798	7.9	2,592	5.6	107.9
1965	25,511	11.4	536,152	8.3	3,053	9.1	2,772	6.9	110.1
1966	27,844	9.1	582,630	8.7	3,271	7.1	2,980	7.5	109.8
1967	28,967	4.0	623,757	7.1	3,357	2.6	3,161	6.1	106.2
1968	32,010	10.5	683,561	9.6	3,681	9.7	3,430	8.5	107.3
1969	34,862	8.9	747,536	9.4	3,970	7.9	3,714	8.3	106.9
1970	35,975	3.2	803,922	7.5	4,044	1.9	3,945	6.2	102.5
1971	39,068	8.6	861,904	7.2	4,355	7.7	4,167	5.6	104.5
1972	43,282	10.8	944,852	9.6	4,796	10.1	4,515	8.4	106.2
1973	48,383	11.8	1,058,902	12.1	5,333	11.2	5,010	11.0	106.4
1974	51,739	6.9	1,162,203	9.8	5,680	6.5	5,448	8.7	104.3
1975	54,540	5.4	1,258,643	8.3	5,988	5.4	5,842	7.2	102.5
1976	61,324	12.4	1,385,201	10.1	6,726	12.3	6,367	9.0	105.6
1977	69,290	13.0	1,534,708	10.8	7,567	12.5	6,984	9.7	108.3
1978	77,776	12.2	1,726,732	12.5	8,452	11.7	7,775	11.3	108.7
1979	85,981	10.5	1,943,579	12.6	9,296	10.0	8,655	11.3	107.4
1980	91,650	6.6	2,153,593	10.8	9,876	6.2	9,480	9.5	104.2
1981	99,314	8.4	2,405,598	11.7	10,789	9.3	10,491	11.0	102.9
1982[1]	102,930	3.6	2,559,556	6.4	11,188	3.7	11,056	5.4	101.2

[1]Estimate.

Source: U.S. Department of Commerce, Bureau of Economic Analysis. Michigan Department of Management and Budget.

As is typical, the recession affected manufacturing industries more severely than any other segment of the Michigan economy. When consumers' budgets are reduced, relatively more expensive durable goods such as automobiles, furniture, and appliances are the first purchases to be cancelled. In 1982, all manufacturing industries generated $23.4 billion in wages and salaries, a decline of 4.9 percent from the 1981 level (before adjusting for inflation). Most of this decline occurred in the durable goods sector, where wages and salaries shrank from $20.5 billion in 1981 to $19.4 billion in 1982. Much of the decline can be traced to the motor vehicle industry. Nationally, automobile sales fell in 1982 to their lowest level in 19 years. This lack of demand for new autos resulted in lower production levels and the lay off of many workers. In Michigan, the number of people employed by the motor vehicle industry fell from 324,200 in 1981 to 295,400 in 1982.

The demand for less expensive nondurable goods did not fall off as drastically. Consequently, the earnings received by the workers in these industries fell only modestly from $4.13 billion in 1981 to $4.05 billion in 1982.

Wage and salary disbursements made by the nonmanufacturing industries in 1982 increased an estimated 2.9 percent to $27.3 billion. The nonmanufacturing industries tend not to be as volatile as the manufacturing industries with the exceptions of the construction and mining industries. The service industry, which is the largest nonmanufacturing industry in Michigan as measured by wages and salaries paid, continued to grow in 1982 despite the lingering recession. Wages and salaries derived from the service industry totaled $9.8 billion in 1982, an increase of 6.7 percent from the $9.2 billion paid in 1981.

Another industry in the nonmanufacturing sector that did relatively well during 1982 was the finance, insurance, and real estate industry. While the real estate business experienced another very poor year due to high mortgage rates and the weak financial situations of prospective new home buyers, the finance segment of the industry fared much better. In total, wages and salaries from the finance, insurance, and real estate industry rose 7.4 percent to $2.7 billion in 1982.

The wholesale and retail trade industries were relatively weak in 1982. The decline in the earnings of those people who lost their jobs and the uncertain financial condition of those still employed worked to constrain consumer spending and as a result employment declined in the wholesale and retail trade industries by 5.3 percent and 4 percent, respectively. Consequently, the wholesale trade industry generated only a 2.8 percent increase in wages and salaries and wages and salaries paid by the retail trade industry declined 0.3 percent from the 1981 level.

The nonmanufacturing industries hardest hit by the depressed economy in 1982 were the construction and mining industries. High mortgage rates and the weak financial condition of consumers resulted

TABLE 12
U.S. and Michigan Real Personal and Per Capita Income, 1950-1982[1]
(1967 Dollars)

Year	Real Michigan Personal Income (Millions)	Percent Change	Real U.S. Personal Income (Millions)	Percent Change	Real Michigan Per Capita Income	Percent Change	Real U.S. Per Capita Income	Percent Change	Real Michigan Per Capita Income as Percent of U.S. Real Per Capita Income
1950	14,810	11.7	313,015	9.1	2,311	10.4	2,069	7.2	111.7
1951	15,312	3.4	324,531	3.7	2,357	2.0	2,117	2.3	111.3
1952	15,995	4.5	338,343	4.3	2,405	2.0	2,174	2.7	110.6
1953	17,882	11.8	355,638	5.1	2,621	9.0	2,247	3.4	116.6
1954	17,323	-3.1	356,488	0.2	2,452	-6.4	2,212	-1.6	110.8
1955	19,252	11.1	383,542	7.6	2,642	7.7	2,334	5.5	113.2
1956	19,656	2.1	405,323	5.7	2,632	-0.4	2,423	3.8	108.6
1957	19,625	-0.2	413,178	1.9	2,593	-1.5	2,425	0.1	106.9
1958	18,974	-3.6	414,449	0.3	2,474	-4.6	2,380	-1.9	104.4
1959	20,166	6.3	438,199	5.7	2,596	4.9	2,474	3.9	104.9
1960	20,780	3.0	449,654	2.6	2,652	2.2	2,498	1.0	106.2
1961	20,610	-0.8	462,372	2.8	2,611	-1.5	2,527	1.2	103.3
1962	22,002	6.7	485,677	5.0	2,774	6.2	2,615	3.5	106.8
1963	23,259	5.7	504,260	3.8	2,886	4.0	2,676	2.3	107.8
1964	25,308	8.8	533,033	5.7	3,092	7.1	2,790	4.3	110.8
1965	27,550	8.9	567,357	6.4	3,297	6.6	2,933	5.1	112.4
1966	28,794	4.5	599,414	5.7	3,383	2.6	3,066	4.5	110.3
1967	28,967	0.6	623,757	4.1	3,357	-0.8	3,161	3.1	106.2
1968	30,690	5.9	656,009	5.2	3,529	5.1	3,292	4.1	107.2
1969	31,521	2.7	680,816	3.8	3,590	1.7	3,383	2.8	106.1
1970	30,643	-2.8	691,248	1.5	3,445	-4.0	3,392	0.3	101.6
1971	32,102	4.8	710,556	2.8	3,578	3.9	3,435	1.3	104.2
1972	34,296	6.8	754,072	6.1	3,800	6.2	3,603	4.9	105.5
1973	35,972	4.9	795,569	5.5	3,965	4.3	3,764	4.5	105.3
1974	34,701	-3.5	786,867	-1.1	3,810	-3.9	3,689	-2.0	103.3
1975	34,034	-2.0	780,796	-0.8	3,735	-2.0	3,624	-1.8	103.1
1976	36,308	6.7	812,435	4.1	3,982	6.6	3,734	3.0	106.6
1977	38,409	5.8	845,569	4.1	4,195	5.3	3,848	3.1	109.0
1978	40,070	4.3	883,691	4.5	4,354	3.8	3,979	3.4	109.4
1979	39,297	-1.9	894,011	1.2	4,249	-2.4	3,981	0.1	106.7
1980	36,154	-8.0	872,607	-2.4	3,896	-8.3	3,841	-3.5	101.4
1981	35,840	-0.9	883,112	1.2	3,894	0.0	3,851	0.6	101.1
1982[2]	35,702	-0.4	884,741	0.2	3,894	0.0	3,821	-0.8	101.9

[1]Michigan personal income deflated by Detroit CPI; U.S. personal income deflated by U.S. CPI.
[2]Estimate.

Source: U.S. Department of Commerce, Bureau of Economic Analysis. Michigan Department of Management and Budget.

in a virtual shutdown of the home-building construction industry and poor earnings by businesses greatly curtailed commercial and industrial construction. Interest rates, including mortgage rates, declined in the last half of the year, but it was a case of too little too late and the decline did not provide much relief to the construction industry in 1982. Wages and salaries paid by the construction industry fell 5.9 percent in 1982 from an already depressed level in 1982. The wages and salaries paid by the mining industry also fell sharply in 1982. The demand for minerals such as iron ore, copper and gravel, depends largely on the level of activity in the manufacturing and construction industries, which were both depressed in 1982. As a result, mining wages and salaries plummeted 9.9 percent in 1982.

The severe economic slowdown also had a major impact on the government sector. Rising unemployment not only curtailed government revenues, but it also added to the demands for government services and aid. This squeeze in government budgets forced the state government and many local governments to lay off workers or at least prohibit new hirings. In addition, state government workers agreed to pay concessions during 1982 to help balance the state budget and help minimize the number of layoffs. In 1982, the wages and salaries generated by the government sector totaled $9.6 billion, a modest increase of only 2.6 percent.

In addition to wages and salaries, other sources of income that are related to labor are other labor income and proprietors' income. Other labor income is income received by employed persons for such things as compensation for work-related injuries and health, life, and dental insurance benefits. In 1982, these payments totaled $8.2 billion, an increase of 5.4 percent. Proprietors' income is the income earned by people who own their own business. While the depressed economy has adversely affected most businesses, it has been particularly hard on the smaller businesses that characterize the proprietors' income category. Farm incomes were particularly weak in 1982 due to large declines in most farm prices. As a result, farm proprietors' income declined 19 percent and nonfarm properietors' income fell 1.8 percent, bringing total proprietors' income down 3.7 percent to $4.2 billion.

Income from interest, dividends and rent was the fastest growing source of income in 1982, increasing 12.7 percent to $17.4 billion. This increase in property income was spurred by an increase in the saving rate, which rose nationally to 6.6 percent in 1982 from 6.4 percent in 1981, and by the continued high level of interest rates during most of 1982. While interest rates began to fall in July, this did not have a major impact on interest earnings in 1982 because of the lag between when an investment is made and when the earnings are received. In addition, property income was boosted in 1982 due to the general rise in stock prices since August.

Transfer payments also rose significantly during 1982, as is typical during poor economic times. The 25.8 percent increase in the number

TABLE 13
Michigan Personal Income 1981, 1982 and 1983 Forecast
(Millions)

	1981	1982	1983 Forecast	Percent Change 1981-82	Percent Change 1982-83
Wage and Salary Disbursements by Place of Work	$60,871	$ 60,684	$ 64,035	-0.3	5.5
Farms	216	214	218	-0.9	1.9
Manufacturing	24,627	23,423	24,505	-4.9	4.6
Durables	20,493	19,372	20,227	-5.5	4.4
Nondurables	4,134	4,051	4,278	-2.0	5.6
Nonmanufacturing	26,560	27,340	29,028	2.9	6.2
Contract Construction	2,336	2,199	2,389	-5.9	8.6
Trans., Comm., & Utilities	3,481	3,557	3,599	2.2	1.2
Wholesale Trade	3,401	3,495	3,706	2.8	6.0
Retail Trade	5,360	5,342	5,659	-0.3	5.9
Finance, Ins., & Real Estate	2,484	2,669	2,895	7.4	8.5
Services	9,174	9,786	10,464	6.7	6.9
Mining	324	292	316	-9.9	8.2
Government	9,350	9,590	10,160	2.6	5.9
Other Industries	118	118	124	0.0	5.1
Other Labor Income	7,757	8,173	8,900	5.4	8.9
Proprietors' Income	4,354	4,194	4,484	-3.7	6.9
Farm	474	384	422	-19.0	10.0
Nonfarm	3,880	3,810	4,062	-1.8	6.6
Total Labor & Proprietors' Income by Place of Work	$72,981	$ 73,051	$ 77,419	0.1	6.0
Less: Contributions For Social Insurance	3,863	3,915	4,087	1.3	4.4
Plus: Residence Adjustment	471	473	479	0.4	1.3
Net Labor & Proprietors' Income By Place of Residence	$69,589	$ 69,609	$ 73,811	0.0	6.0
Dividends, Interest & Rent	15,480	17,449	18,397	12.7	5.4
Transfer Payments	14,244	15,872	17,165	11.4	8.1
Total Personal Income	$99,314	$102,930	$109,373	3.6	6.3

Source: U.S. Department of Commerce, Bureau of Economic Analysis. Michigan Department of Management and Budget.

of unemployed people in Michigan in 1982, pushed the level of unemployment compensation benefits to an estimated $1.7 billion from $1.3 billion in 1981. The poor economy also forced more people to file for public assistance. The number of people receiving public assistance from such programs as aid to dependent children, general assistance, emergency needs program and food stamps, rose 1.4 percent to 1.1 million in 1982. These unfortunate developments helped increase total transfer payments 11.4 percent to $15.9 billion.

In addition to the depressed economy, another factor that helped stifle the growth in personal income during 1982 was the increase in the social security tax. Social security contributions are subtracted from total labor-related earnings to arrive at total personal income. In 1982, the social security tax rate was raised to 6.7 percent from 6.65 percent and the taxable wage limit was raised to $31,800 from $29,700 in 1981. As a result, total social security contributions, which are subtracted from total labor income, rose 1.3 percent to $3.9 billion.

1983 Outlook

Led by a rise in consumer spending, the national economy is expected to begin a modest recovery in 1983. In Michigan, the economic recovery will halt the decline in wage and salary employment that has occurred during the past three years. Average earnings are expected to rise approximately 5 percent. As a result, wage and salary disbursements are forecast to increase 5.5 percent to $64 billion in 1983. This increase will occur in each of the major industries. In particular, the manufacturing durable goods industries, which have been extremely depressed, are expected to generate 4.4 percent more wages and salaries in 1983 than in 1982, due primarily to the projected recovery in the motor vehicle industry. Among the nonmanufacturing industries, increased consumer spending should increase the wages and salaries of the wholesale trade industry 6 percent, the retail trade industry 5.9 percent and the service industry 6.9 percent. A modest recovery in the new home market is expected to increase the depressed earnings generated by the construction industry by 8.6 percent and an anticipated increase in the home market in general should be instrumental in boosting the wages and salaries paid by the finance, insurance, and real estate industry 8.5 percent. Total government employment is expected to rise 1.4 percent in 1983, which coupled with slightly lower than average pay increases are expected to boost government wages and salaries 5.9 percent in 1983.

In addition to wage and salary disbursements, other income derived from labor is also projected to increase in 1983. Since much of the income reported under the other labor income category depends on the number of people employed as well as their earnings level, both of which are expected to rise slightly in 1983, other labor income is

forecast to rise 8.9 percent in 1983. Proprietors' income will be enhanced in 1983 by the increase in consumer spending and by the improved financial situation for farmers due to lower interest rates and a new grain price support program recently revealed by the federal government. Therefore, total proprietors' income is expected to rise 6.9 percent to $4.5 billion.

Property income is expected to rise only 5.4 percent to $18.4 billion in 1983, due to the decline in interest rates and the continuing weak financial conditions of most business, which will keep dividends at relatively low levels. The growth in transfer payments is also expected to slow down in 1983 due to the anticipated reduction in the number of people unemployed. Transfer payments are projected to rise 8.1 percent to $17.2 billion in 1983.

These projected developments in the various sources of income for individuals are expected to result in an increase in total personal income of 6.3 percent to $109.4 billion in 1983. In real terms, this will amount to an estimated increase of 1.7 percent, which will be the first increase in real Michigan personal income since 1978.

PRICES

1982 Developments

A major bright spot in the otherwise dismal 1982 economic performance was the continued decline in inflation. As measured by the Detroit Consumer Price Index (CPI), inflation declined from 9.3 percent in 1981 to 4 percent in 1982, the lowest rate of increase since 1972. The pattern of slowing reflected a small decline of 0.6 percent in the first quarter of 1982 followed by an acceleration of the inflation rate in the second quarter and then a resumption of the slowdown in the last two quarters of the year.

The decline in the inflation rate reflected the depressed world economy, large farm crops, increased productivity, and a worldwide oil surplus. In addition, wage increases moderated in response to high unemployment and eased inflationary expectations.

The Detroit Consumer Price Index reflected the above-mentioned factors in most of its components as indicated in Table 14. The rate of increase in food prices was cut approximately in half from 7.7 percent in 1981 to 3.8 percent in 1982. The rate of increase in housing costs slowed dramatically from 9.2 percent to only 3.2 percent. All major components of the housing index slowed in their rate of increase. The most dramatic reduction occurred in the cost of home ownership as both housing prices and interest rates fell during the year. Mortgage interest rates were down more than 3 percentage points over the year. Even the fuels and rent components of the housing index increased more slowly in 1982. The rate of increase in transportation also slowed greatly, as new car and gasoline prices declined. Among major components, only medical care and other goods and services failed to slow their rate of increase.

Reflecting the weak Michigan economy, the rate of increase in the Detroit Consumer Price Index lagged the U.S. Consumer Price Index by 2.1 percentage points. The U.S. Consumer Price Index increased 6.1 percent compared with a 4 percent increase in the Detroit CPI.

1983 Outlook

The 1983 inflation outlook is favorable. Encouraging factors include large 1982 harvests, adequate oil supplies, and moderate labor cost increases. As the economy recovers, productivity should increase as is typical in the early stages of an economic recovery. Producer price increases and raw commodity price decreases will also ease inflationary pressures.

TABLE 14
Detroit Consumer Price Index 1981, 1982 and 1983 Forecast
(Percent Changes)

	1981	1982		1983 Forecast	
	Annual Average	Dec. 81 to Dec. 82	Annual Average	Dec. 82 to Dec. 83	Annual Average
All Items	9.3	5.1	4.0	4.0	4.5
Food	7.7	1.9	3.8	4.0	4.6
Housing	9.2	6.7	3.2	3.5	3.8
Home Ownership	8.1	7.3	1.2	1.8	2.4
Fuels	16.0	13.1	9.3	9.6	9.7
Household Furnishings & Operations	9.0	1.2	3.8	3.9	3.9
Apparel and Upkeep	2.2	5.1	1.9	1.9	1.9
Transportation	13.3	1.5	4.3	3.7	3.8
Private	13.1	1.4	4.3	3.6	3.7
Gasoline[1]	11.3	-6.6	-5.2	0.0	0.6
Public	17.6	4.5	4.1	4.4	4.4
Medical Care	7.5	8.5	8.2	7.2	8.0
Entertainment	5.1	7.1	5.1	4.9	5.8
Other Goods and Services	8.9	15.8	12.2	6.3	8.2

[1]U.S. CPI.

Source: U.S. Department of Labor, Bureau of Labor Statistics; Michigan Department of Management and Budget.

Despite the encouraging outlook for inflation, there are also factors that could push prices up moderately this year. In 1982, retailers were largely successful at reducing inventories—sometimes by distress sales. As the economy recovers in 1983, fewer retailers will discount their merchandise and upward price pressures may develop. Late in the year, the decline in the dollar will also contribute to some price increases for imports and goods competing with imports. Lower mortgage interest rates will draw more buyers into the market and lead to increases in home prices in the coming year. In addition, a technical change in the All-Urban Consumer Price Index will be made to reflect more accurately the actual costs of home ownership. Housing costs will be measured by a rent index. This change will likely cause an upward adjustment in 1983 housing costs.

As a net result of these forces, the Detroit Consumer Price Index will rise approximately 4.5 percent during 1983. Because of good crops in 1982, food prices will rise by only 4.6 percent. Nevertheless, price increases will exceed 1982 increases because of higher government price supports combined with a modest economic recovery by year end. The housing index will also rise in 1983 by more than in the previous year, an estimated 3.8 percent. This reflects the increased demand largely brought about by the change in interest rates as well as the proposed change in the index to a rental equivalent. Fuel costs will continue to rise considerably faster than the general price level, largely because of the increasing costs of natural gas. Transportation costs will rise at a rate of 3.8 percent because new car incentive discounts will be less common in 1983 and reductions in gasoline prices will be largely offset by increases in gasoline taxes. Medical care prices in 1983 will rise by 8 percent compared with 8.2 percent in 1982, as continued high unemployment exerts a temporary downward pressure.

Overall, Michigan faces another year of moderate inflation. Because of the extremely depressed economy and uncertainties in federal monetary policy, it will not be clear until 1984 whether the reduction in inflation is permanent or part of the business cycle.

CONSUMER SPENDING

1982 Developments

Consumer spending in 1982, as measured by Michigan sales tax collections, turned downward, falling 1.4 percent from the moderate growth level of 1981. (See Table 15.) Adjusted for inflation, consumer spending fell 5.2 percent. Based on strong sales activity, the economy appeared to be headed for a recovery in the summer of 1981. The flurry was short-lived, however, as sales tax collections plummeted below prior year levels in each quarter of 1982.

TABLE 15
Michigan Sales Tax Collections, 1976-1983
(Millions)

Period	I	II	III	IV	Total	Percent Change
1976	$256.0	$271.3	$285.1	$282.2	$1,094.6	13.2
1977	293.0	307.0	326.7	326.7	1,253.4	14.5
1978	322.9	347.4	365.6	365.6	1,401.5	11.8
1979	362.3	375.5	391.2	389.0	1,518.0	8.3
1980	384.8	368.5	366.6	383.7	1,503.6	-0.9
1981	392.2	398.0	407.7	396.4	1,594.3	6.0
1982	389.3	389.3	398.5	394.6	1,571.7	-1.4
1983[1]	400.0	407.0	435.0	436.0	1,678.0	6.8

[1] Estimate.

Source: Michigan Department of Treasury and Department of Management and Budget.

The 1982 level of collections was only 3.5 percent above 1979 sales tax receipts. For the third year in a row, building material sales tax collections recorded the greatest revenue loss, off 13.5 percent due to a dismal market for new homes. (See Table 16.) The related category of furniture sales tax collections dropped 7.1 percent.

New and used auto sales tax collections were down 0.2 percent in 1982 reflecting, in part, sales lost to 1981 price promotions. Sales throughout most of the year were very low; however, as special financing rates became available in late 1982, sales began to pick up.

TABLE 16
Michigan Sales Tax Collections
By Component, 1981 and 1982[1]
(Millions)

Component	1981	Percent Change	1982	Percent Change
Building Materials	$ 95.4	-5.3	$ 82.5	-13.5
General Merchandise	159.0	7.7	153.5	-3.5
Food	256.9	4.2	261.6	1.8
Automotive	376.3	10.3	377.0	0.2
New and Used Vehicles	205.9	15.4	205.5	-0.2
Service Stations, Other	170.4	4.7	171.5	0.6
Apparel	70.6	4.9	70.1	-0.7
Furniture	68.6	0.9	63.7	-7.1
Miscellaneous Retail	155.1	3.5	156.0	0.6
Nonretail	418.2	7.3	414.4	-0.9
Gas and Electricity	150.6	14.0	166.6	10.6
Other	267.6	3.9	247.8	-7.4
Total	$1,600.1	5.9	$1,578.8	-1.3

[1]Includes penalty, interest, and license fees.

Source: Michigan Department of Treasury.

Although nonretail collections were down 0.9 percent, gas and electric tax collections were up 10.6 percent, maintaining the double-digit growth level of prior years. Most of the revenue gain is attributable to rate increases.

As shown in Table 16, revenue from most other categories declined or remained nearly constant in 1982. The expected recovery was delayed due to high unemployment and interest rates. Although interest rates began to turn downward by late summer, the reductions were not significant enough to provide much stimulus to consumer spending.

The slowdown in purchases of major durables resulted in a lighter consumer debt burden. (See Table 17.) Reduced debt obligation put consumers in a more favorable position to incur new spending as the economy strengthens.

1983 Outlook

In 1983, consumer spending will begin to respond slowly to an improving economy. The most important indicator of consumer spending, personal income, is expected to increase 6.3 percent in 1983—nearly double the 1982 rate. This improvement will spur consumer spending.

TABLE 17
U.S. Consumer Installment Credit, 1979-1982
(Millions)

Year	Outstanding Credit	Percent of Personal Income
1979	$312,024	15.99
1980	313,472	14.51
1981	333,375	13.80
1982.I	328,234[1]	13.07
.II	329,851[1]	12.92
.III	334,076[1]	12.89

[1]Quarterly average expressed at an annual rate.

Source: *Federal Reserve Bulletin*, Federal Reserve System, Board of Governors, selected issues, 1982.

Inflation, as measured by the Detroit Consumer Price Index, dipped to a 4 percent rate in 1982 and will increase moderately to 4.5 percent in 1983. Although consumer prices began to decline in 1982, they did not contribute to a significant increase in spending because of other offsetting factors: high unemployment and interest rates.

Interest rates, which began to fall sharply in the late summer of 1982, are expected to decline moderately in 1983. The rate reductions of 1982 were not great enough to stimulate consumer spending; however, the anticipated rate reductions of 1983 are expected to be enough to generate increased production and consumer demand. There is the danger that the large federal government deficit could force up interest rates later in the year, in which case a sustained recovery in consumer spending would be thwarted.

To meet production demands, employment levels will slowly rise while the unemployment rate will begin to move downward. Declining unemployment will improve consumer sentiment and, in light of reduced interest rates and prices, will offer stimulus to the economy.

As mortgate rates continue their move downward, housing starts will increase and construction activity will be strengthened. These activities will result in increased purchases of building materials and durables.

To summarize, consumer spending will increase under 4 percent in the first half of 1983 as declining interest rates and reduced inflation slowly spur consumption activity. By summer, consumer sentiment is expected to strengthen as unemployment rates fall and the 10 percent personal income tax cut coupled with low inflation increase real disposable income. The debt burden will increase toward year end as strong pent-up demand and increased purchases of durables hike total spending, as measured by sales tax receipts, by 6.8 percent for the year as a whole.

STATE AND REGIONAL COMPARISONS

1982 Developments

In 1982, Michigan experienced the lowest level of economic activity among the states as illustrated by a comparison with other states of total and per capita personal income, employment, and unemployment rates. As unemployment increased in many states, the number of jobless workers in Michigan climbed to record levels, due to the state's heavy dependence on durable goods manufacturing.

TABLE 18
Personal Income in Selected States and Regions, 1980, 1981, and First Half of 1981 and 1982
(Seasonally Adjusted in Billions)

State	1980	1981	Percent Change	Jan.-June 1981	Jan.-June 1982	Percent Change
California	$ 258.6	$ 288.5	11.6	$ 281.3	$ 304.2	8.0
Florida	90.3	103.[illegible]	14.6	100.3	110.1	9.8
Illinois	119.5	132.[illegible]	11.0	129.8	137.4	5.9
Indiana	48.8	53.1	8.8	52.6	53.9	2.5
MICHIGAN	91.7	99.3	8.3	98.0	102.1	4.2
New York	180.6	201.8	11.7	196.7	213.1	8.3
Ohio	102.1	111.2	8.9	108.9	115.5	6.1
Pennsylvania	111.6	123.1	10.3	120.1	128.2	6.7
Texas	136.3	158.4	12.5	153.0	169.7	10.9
Wisconsin	43.9	47.6	8.4	46.5	48.9	5.2
Region						
Far West	334.2	372.3	11.4	363.5	391.2	7.6
GREAT LAKES	406.0	443.9	9.3	435.9	457.[illegible]	5.0
Mideast	430.6	478.8	11.2	466.8	503.5	7.9
New England	123.4	137.6	11.5	133.8	145.5	8.7
Plains	157.7	177.0	12.2	172.9	183.7	[illegible].2
Rocky Mts.	59.7	67.6	13.2	65.7	71.[illegible]	8.2
Southeast	428.9	483.0	12.6	470.4	505.4	7.4
Southwest	198.2	228.[illegible]	15.4	221.1	244.5	10.6
United States	2,153.6	2,405.6	11.7	2,346.1	2,520.1	7.4

Source: *Survey of Current Business*, U.S. Department of Commerce, Bureau of Economic Analysis, August, 1982.

Personal income in Michigan increased from an annual average of $98 billion in the first half of 1981 to $102.1 billion in the first half of 1982, a 4.2 percent increase. (See Table 18.) This growth rate fell just below the 4.3 percent increase in the Detroit Consumer Price Index during the same period. Thus, workers experienced a decline in their buying power which dampened consumer spending.

In the Great Lakes region, personal income rose only 5 percent in the first half of 1982, the lowest rate of any region. The rate slowed significantly when compared with personal income growth of 9.3 percent in 1981.

TABLE 19
Per Capita Personal Income in Selected States and Regions, 1980 and 1981

State	1980	1981	Percent Change	Percent of National Average 1980	Percent of National Average 1981
California	$10,896	$11,923	9.4	115	114
Florida	9,153	10,165	11.1	97	97
Illinois	10,437	11,576	10.9	110	110
Indiana	8,863	9,720	9.7	93	93
MICHIGAN	9,876	10,790	9.3	104	103
New York	10,256	11,466	11.8	108	109
Ohio	9,436	10,313	9.3	100	98
Pennsylvania	9,384	10,370	10.5	99	99
Texas	9,554	10,729	12.3	101	102
Wisconsin	9,313	10,035	7.8	98	96
Region					
Far West	10,674	11,669	9.3	113	111
GREAT LAKES	9,719	10,656	9.6	103	102
Mideast	10,166	11,301	11.2	107	108
New England	9,966	11,058	11.0	105	105
Plains	9,156	10,270	12.2	97	98
Rocky Mountain	9,094	10,056	10.6	96	96
Southeast	8,113	9,014	11.1	86	86
Southwest	9,296	10,405	11.9	98	99
United States	9,480	10,491	10.7	100	100

Source: *Survey of Current Business,* U.S. Department of Commerce, Bureau of Economic Analysis, August, 1982.

In every region, personal income growth slowed due to the weak economy. Even in the recession-resistant southwest, personal income growth declined from 15.4 percent in 1981, to 10.6 percent in the first half of 1981 to the first half of 1982. This region's rate of personal income growth dropped because of declining oil prices.

In 1981, Michigan's per capita personal income increased 9.3 percent above the previous year. (See Table 19.) Although Michigan's per capita income growth slowed, it still remained 3 percent above the U.S. average. Nevertheless, Michigan's per capita income as a percent of the national average has followed a downward trend since 1978, and again fell by one percentage point from 1980 to 1981.

Similarly, the per capita income of the great lakes region was 2 percentage points above the national average. Per capita income in the great lakes region grew from $9,719 in 1980 to $10,656 in 1981, or 9.6 percent. As shown in Table 19, per capita income, as a percent of the national average, declined in the great lakes and far west, but increased in the mideast, plains, and southwest regions.

Declines in income growth primarily occurred due to falling employment. Trends in employment and unemployment from the first half of 1981 compared with the first half of 1982 for selected states are shown in Table 20. A comparison of the first half of 1982 with the previous year reveals that employment declined at the national level by 2.5 percent and at the state level by 5.7 percent. Most of the fall in Michigan's employment may be attributed to job losses in manufacturing, comprising 26.1 percent of Michigan's workers during the same period. In 1982, the demand for manufactured products such as automobiles plummeted due to high interest rates and the weak economy. As a result, states like Michigan with high levels of manufacturing employment suffered greater employment declines than states with greater portions of employees in less cyclical industries.

States employing a high percentage of their workers in manufacturing industries included Illinois with 21.2, Indiana with 28.3 percent, Ohio with 25.9 percent, Pennsylvania with 24.9 percent, and Wisconsin with 26.1 percent. Of the states listed, Michigan recorded the largest employment drop, followed by Indiana with a 5.3 percent decline in employment and a corresponding unemployment rate of 11.9 percent. The next largest fall in employment was posted by Pennsylvania, down 5.2 percent, while the jobless rate climbed to 11.2 percent. Hence, declining employment in the manufacturing industries resulted in double-digit unemployment rates for these states.

In contrast, states with lower levels of manufacturing employment, such as Texas and Florida were less affected. Texas recorded an employment decline of only 0.8 percent while Florida actually experienced a slight upturn in employment of 0.7 percent, during the October, 1981 to October, 1982 period.

In October, 1982, Michigan's unemployment rate reached 14.9 percent up 3.3 percentage points from a year earlier. By December, 1982, this rate had skyrocketed to 17.3 percent, as the economy

weakened and individuals re-entered the labor force in hopes of finding a job. The national unemployment rate of 10.4 percent, in October, 1982, was significantly lower than Michigan's for the same period.

States with unemployment rates below the national average included California, Florida, New York, and Texas. While New York's tourist trade fell off due to a strong U.S. dollar, its economy remained strong compared with other states. The unemployment rate continued at a lower level in New York since a smaller portion of its labor force was engaged in manufacturing. In New York City, approximately one-half of the city's employment was devoted to construction, finance, and services which performed above average when compared with previous recession periods. While some states were not as hard hit by unemployment as Michigan, most states experienced unemployment rates which were high relative to historical standards. Thus, many states faced the toughest economic times since the 1930s as they slashed spending and increased taxes. In 1982, approximately 21 states enacted tax hikes to offset revenue losses.

The difference in state capacities to raise taxes was highlighted in 1982 as policymakers debated how to finance President Reagan's proposed New Federalism program. This plan called for decentralizing more than 40 programs by turning them back to the states in exchange for federal responsibility for the Medicaid program; however, the proposal met with only limited success due, in part, to the enormous disparity in the ability of the states to finance these programs.

The extent of the difference was illustrated by the Advisory Commission on Intergovernmental Relations' tax capacity index. Usually, an assessment of a state's ability to raise revenue has been based on the per capita income of its residents which was reviewed earlier; however, the per capita income measure does not include all revenue sources which could be taxed including property, income, sales, and minerals. The advantage of the tax capacity index is that all tax bases are included even if the individual state does not tax that base because each state has the opportunity to tax that base if it so desired. Each individual tax base is multiplied by an average tax rate for the nation, and hence the difference in revenue yields reflects only the difference in the tax base.

The tax capacity index for 1980 (the most recent statistics available) ranged from a high of 260 percent in Alaska, an energy-rich state, to a low of 69 percent in Mississippi. Michigan's ability to raise revenue is just slightly below the national average with an index of 97 percent. In 1979, Michigan's index was 104 percent, 7 percentage points higher. Like Michigan, the tax capacity of the great lakes region has declined while the far west has experienced a growth of the tax base.

In addition, the standard deviation or relative dispersion of the states around the average tax capacity index grew from 10.4 in 1975 to 13.7 in 1979, and to 15.6 in 1980. Thus, the disparity in revenue-raising ability among states has widened over the last few years.

TABLE 20
Employment and Unemployment Rates in Selected States, 1981 and 1982
(Thousands)

State	October, 1981		October, 1982		Percent Change in Employment	Percentage Point Change in Unemployment rate	Percent Change in Manuf. Emp.	Percent Employed in Manuf.
	Employment[1]	Unemployment rate	Employment[1]	Unemployment rate				
California	10,127.6	7.7	9,955.6	10.3	-1.7	2.6	-5.4	19.2
Florida	3,731.4	7.9	3,757.0	9.2	0.7	1.3	-5.0	11.8
Illinois	4,784.9	8.2	4,583.6	12.0	-4.2	3.8	-13.8	21.2
Indiana	2,124.0	9.6	2,011.0	11.9	-5.3	6.1	-12.7	28.3
MICHIGAN	3,404.2	11.6	3,208.9	14.9	-5.7	3.3	-14.0	26.1
New York	7,344.8	6.7	7,283.4	9.0	-0.8	2.3	-5.8	18.7
Ohio	4,363.4	9.9	4,209.1	13.2	-3.5	5.6	-11.5	25.9
Pennsylvania	4,733.8	8.6	4,486.7	11.2	-5.2	2.6	-13.6	24.9
Texas	6,244.7	4.7	6,196.3	7.6	-0.8	2.9	-9.5	16.3
Wisconsin	1,943.4	7.0	1,875.3	10.5	-3.5	3.5	-9.4	26.1
United States[2]	91,884.0	8.0	89,582.0	10.4	-2.5	2.4	-8.8	20.7

[1]Employees on non-agricultural payrolls.

[2]Seasonally adjusted.

Source: *Employment and Earnings,* U.S. Department of Labor, Bureau of Labor Statistics, November and December, 1982.

1983 Outlook

Although a weak economic recovery is expected in 1983, the Michigan economy will benefit more than many states as low interest rates and higher real disposable incomes spur automobile sales, particularly in the second half of the year. In 1983, wage and salary employment is projected to average 3,225,600, up 0.4 percent from 1982. In addition, the unemployment rate is projected to average 14.8 percent in 1983, down 0.7 percentage points from the 1982 average. Michigan's jobless rate will remain significantly above the national jobless rate, estimated at about 11 percent in 1983.

While Michigan's unemployment rate is expected to drop in 1983, the national rate is expected to rise and thus the gap between these rates will narrow. For example, Michigan's 1982 annual jobless rate averaged 15.5 percent compared with the U.S. rate of 9.7 percent, a difference of 5.8 percentage points. This gap is projected to narrow to 3.7 percentage points, in 1983, as the U.S. unemployment rate is estimated to reach 11.1 percent compared with Michigan's forecasted rate of 14.8 percent.

Over the long run, growth in Michigan and the Great Lakes region is expected to fall behind the south and west as employment growth is expected to be weak in the manufacturing industry. Recent trends illustrate that the employment mix is shifting away from manufacturing toward services. This shift in employment may improve the stability of the Michigan economy but at the cost of a lower standard of living and slower growth of personal income, as service industry jobs pay only half the wage of manufacturing jobs.

POPULATION

1982 Development

According to preliminary estimates, Michigan's population totaled 9,227,300 as of July 1, 1982. This represents a significant decrease from the final census counts of 9,262,078 in 1980. For the first time since World War II, Michigan experienced a significant population decline and the Michigan share of total U.S. population dropped below 4 percent as a result. This decline continues a national population trend as individuals migrate from the northeastern and north central states to the south and west. In addition, economic hardship and high unemployment in Michigan since 1980 caused some residents to leave Michigan. In two years, net out-migration climbed to 184,000 individuals--more than half the level recorded in the previous decade. During the 1970s, net out-migration totaled 300,000 individuals.

Past Trends

This tremendous population movement altered population trends witnessed in the past decade. During the 1970s, net migration from Michigan occurred mostly in major metropolitan counties which contain central cities or cities of a standard metropolitan statistical area (SMSA). All other parts of the state experienced net in-migration throughout most of the decade.

The most significant development of the population change during the 1970s was the revival of population growth in rural areas. Fringe metropolitan counties and nonmetropolitan areas recorded enormous growth during the period, increasing by 15.3 percent and 17.2 percent respectively while metropolitan central counties decreased by 4.1 percent. The northern lower peninsula in particular grew by 29.4 percent with 81 percent of the growth stemming from in-migration. (See Table 21.)

Metropolitan Areas

In 1980 and 1981, the recession interrupted the decentralization of population from urban centers. The population loss in metropolitan central counties was 0.2 percent a year in that period, which is significantly lower than the average of 0.4 percent a year experienced during the 1970s. High interest rates crippled the housing market and immobilized individuals who found they could not afford to buy a house or could not sell their existing house. As a result, new residential development between 1980 and 1981 almost stopped in many areas.

The population shift from cities to suburban areas slowed down and metropolitan central counties lost fewer people.

In 1981 and 1982, the unemployment situation worsened. Consequently, the population in metropolitan central counties resumed the previous trend and experienced net out-migration between 1981 and 1982 at rates exceeding those experienced in the 1970s. Genesee County even doubled its out-migration rate in 1981-82; however, net migration from Wayne County between 1981 and 1982 did not exceed the rate experienced in the 1970s.

During the 1970s, a substantial number of people moved from central metropolitan areas to surrounding fringe areas and nonmetropolitan areas in Michigan. After 1980, fewer people could afford to move to fringe counties of the metropolitan areas. At the same time, the unemployment situation caused suburban residents to seek jobs elsewhere. Thus, for the first time, fringe counties began to experience out-migration or population decline. Between 1970 and 1980, every fringe metropolitan county without exception gained population through net in-migration. In contrast, between 1980 and 1982, every one of them experienced net out-migration, and some of them even had population declines because out-migration was so large that natural increase (births exceeding deaths) could not compensate for the migration losses. Even Livingston County, which had a population growth of 70 percent during the 1970s began to experience out-migration.

Despite the overall decline in the population of metropolitan areas, the Grand Rapids and Kalamazoo SMSAs reversed the previous trend and experienced a net in-migration to central counties and slowdown of net in-migration to fringe counties between 1980 and 1981. Nevertheless, in 1982, these fringe counties could not resist the overall trend and joined other metropolitan fringe counties experiencing population outflows. Only Kent County and Kalamazoo County continued to grow and their growth exceeded the growth rates experienced in the 1970s. The diversification of the economy in these two metropolitan areas helped them retain population.

Nonmetropolitan Areas

The recession also affected population growth in nonmetropolitan areas. The population in nonmetropolitan areas continued to increase in 1981 and 1982, but at rates significantly lower than those experienced between 1970 and 1980. During the 1970s, most counties in nonmetropolitan areas gained population, and only seven out of 57 counties experienced out-migration. By July 1, 1981, 22 counties had experienced net out-migration and, one year later, the number increased to 27 counties. Throughout the decade, nonmetropolitan areas as a whole, experienced net in-migration of more than 14,200 every year. Between 1980 and 1981, net in-migration dropped to 2,000. One year later, by July 1, 1982, nonmetropolitan areas as a whole experienced net out-migration of 9,500.

An analysis of nonmetropolitan population trends by region reveals the following. During the 1970s, net in-migration to nonmetropolitan areas in the southern lower peninsula climbed to more than 50,000 individuals; however, between 1980 and 1981, this trend reversed and the areas recorded net out-migration of 1,100. By July 1, 1982, an additional net out-migration of 9,000 occurred.

The northern lower peninsula experienced an astonishing population growth rate in the 1970s with net in-migration of more than 90,000. Net in-migration accounted for 81 percent of the population growth of nonmetropolitan areas during the decade. Between 1980 and 1981, however, net in-migration dropped to only 4,900 and by July 1, 1982, net in-migration fell to zero.

The upper peninsula experienced a turnaround of long-term population losses in the 1970s with net in-migration of 849. Between 1980 and 1981, net out-migration reached more than 1,000 but, one year later, the net loss through migration dropped to about 500.

Although overall population growth in nonmetropolitan areas declined, some counties continued to experience substantial growth from 1980 to 1982 including: Allegan (2.6%), Antrim (3.9%), Emmet (3.7%), Iosco (6.1%), Kalkaska (3.6%), Lake (8.1%), Leelanaw (4.8%), Missaukee (3.6%), Montcalm (3.2%), Oscoda (3.9%), Roscommon (8.9%), St. Joseph (3.3%), and Wexford (4.4%). Most of the growing counties were located in the northern lower peninsula. Thus, the northern lower peninsula as a whole is the only area that still recorded net in-migration between 1980 and 1982. Nonmetropolitan areas in the southern lower peninsula and in the upper peninsula all had net out-migration between 1980 and 1982.

In-migration to Michigan

Despite the overall decline of population growth, people still move to Michigan. Based on drivers license information, between April 1, 1980 and July 1, 1982, more than 155,000 people with drivers licenses from other states moved to Michigan. Counting all family members, an estimated 219,000 people moved to Michigan during the last two years. Thus Michigan continued to draw some new people to the state despite the tremendous outflow of migrants.

A Changing Labor Force

An examination of changes in the labor force may help explain why people still moved to Michigan, the state with the highest unemployment rate in the nation in 1982. The 1980 census revealed that Michigan continued to be a highly industrialized state in which 30.2 percent of the labor force worked in manufacturing industries. This share represented a significant decline from the 34 percent share recorded in 1970. While manufacturing employment declined, employment in wholesale and retail trade and in services rose. Employment in wholesale and retail trade increased from 18.4 percent in 1970 to

TABLE 21
Michigan Regional Population Change, 1970-1982

Area	April 1, 1970	April 1, 1980	1970-1980 Change Number	1970-1980 Change Percent	1970-1980 Net Migration[1] Number	1970-1980 Net Migration[1] Percent
Michigan	8,881,826	9,262,078	380,252	4.28	-299,967	-3.34
Metropolitan Areas[2]	7,518,087	7,664,486	146,399	1.95	-442,316	-5.88
Central[3]	5,167,378	4,955,349	-212,029	-4.10	-595,546	-11.53
Fringe[4]	2,350,709	2,709,137	358,428	15.25	153,230	6.52
Nonmetropolitan Areas	1,363,739	1,597,592	233,853	17.15	142,349	10.44
Northern Lower[5]	383,965	496,713	112,748	29.36	90,881	23.67
Southern Lower[5]	675,427	781,122	105,695	15.65	50,619	7.49
Upper Peninsula	304,347	319,757	15,410	5.06	849	0.28

Area	April 1, 1980	July 1, 1982	1980-1982 Change Number	1980-1982 Change Percent[6]	1980-1982 Net Migration[1] Number	1980-1982 Net Migration[1] Percent[6]
Michigan	9,262,078	9,227,300	-34,800	-0.38	-183,500	-1.98
Metropolitan Area[2]	7,664,486	7,613,400	-51,100	-0.67	-176,600	-2.31
Central[3]	4,955,349	4,905,600	-49,800	-1.00	-129,300	-2.60
Fringe[4]	2,709,137	2,707,800	-1,300	-0.05	-47,300	-1.74
Nonmetropolitan Area	1,597,592	1,613,900	16,300	1.02	-6,900	-0.43
Northern Lower[5]	496,713	508,400	11,700	2.35	4,900	0.99
Southern Lower[5]	781,122	783,900	2,700	0.35	-10,200	-1.31
Upper Peninsula	319,757	321,600	1,900	0.59	-1,600	-0.52

[1]Net migration is the difference between net change and natural increase.

[2]Metropolitan areas are the counties in standard metropolitan statistical areas defined as of 1981.

[3]Central metropolitan counties are the counties which contain central cities or cities of standard metropolitan statistical areas.

[4]Fringe counties are the metropolitan counties which do not contain central metropolitan cities.

[5]The northern lower peninsula areas include the following counties: Arenac, Clare, Gladwin, Lake, Mason, Osceola, and the area north of those counties in the lower peninsula. The southern lower peninsula area includes nonmetropolitan counties located south of those counties.

[6]Percentages are calculated from unrounded figures.

Source: U.S. Bureau of the Census. Michigan Department of Management and Budget.

20.3 percent in 1980, close to the national average of 20.6 percent. Employment in services, including business services, personal services, entertainment, and professional services also increased from 23 percent of total employment in 1970 to 28.3 percent in 1980. Service employment nationally averaged 28.7 percent. Thus, the Michigan economy, while still highly industrialized, relied less heavily on manufacturing industries and more heavily on services and wholesale and retail trade by the end of the 1970s.

This transformation in the workplace changed the occupational structure of Michigan's labor force. For the first time in history, the number of white-collar workers in Michigan exceeded the number of blue-collar workers. Between 1970 and 1980, Michigan's labor force grew by 13.6 percent from 3.2 million workers to almost 3.7 million. During the period, blue-collar workers, including laborers, machine operators, transport workers, various skilled and craft workers, and farm laborers declined by more than 125,000, down from 43.3 percent of the labor force to only 34.6 percent in 1980. In contrast, the number of white-collar workers (those employed in managerial, professional, technical, sales, and administrative support positions) grew from 1,459,800 to 1,882,000, an increase of 28.9 percent. White-collar workers accounted for 51.6 percent of the labor force in 1980 compared with 44.8 percent in 1970. Thus, the composition of the labor force shifted in the 1970s from blue-collar to white-collar employment as manufacturing industries declined in relative importance. While the decline in manufacturing industries forced many workers to leave the state, the growth in service and professional occupations attracted some new workers to Michigan. Therefore, changes in the labor force accounted for part of Michigan's attraction of new residents.

1983 Outlook

Although Michigan lost population in 1982, more than 9.2 million people still reside in the state. Michigan ranks as the eighth most populous state in the nation. The populations of some counties in Michigan even exceed those of many states such as New Hampshire, North and South Dakota, Vermont, and other mountain states. With this size population, ample natural resources, and a strong industrial base the Michigan economy will recover eventually. Therefore, the outflow of Michiganians during the past two years will not continue in the future. In addition, rising unemployment in other states will discourage migration from Michigan. Therefore, in 1983, out-migration is expected to fall to 70,000. The number of births will be about 135,000 and deaths will be about 73,000. Thus, Michigan's population will remain constant between 1982 and 1983.

MICHIGAN SECTOR ANALYSIS

- Motor Vehicle and Equipment Industry
- Energy
- Finance
- Construction
- Agriculture
- Mineral Supplies and Mining
- Transportation
- Tourism
- International Trade

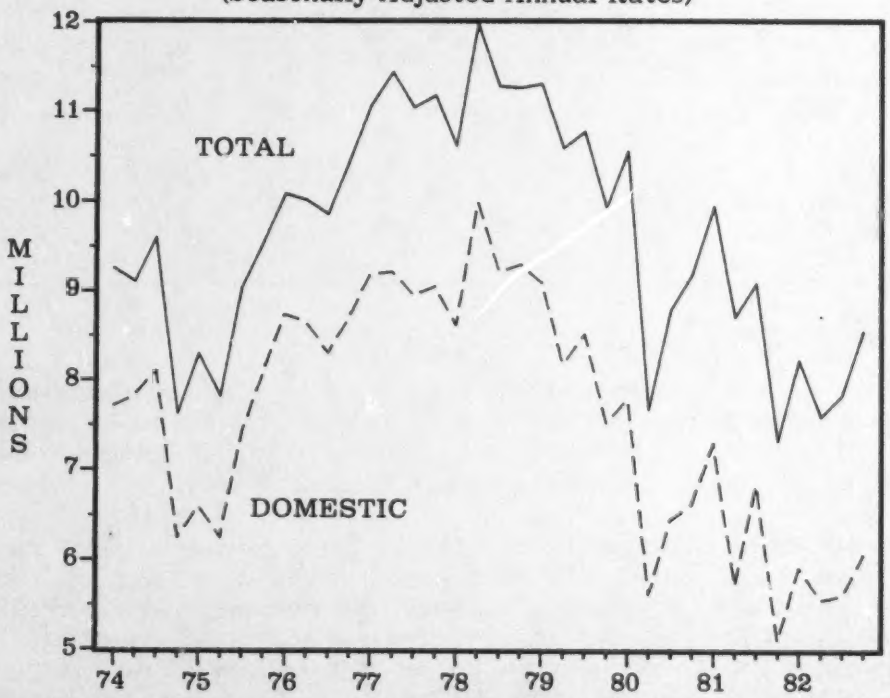
MOTOR VEHICLE AND EQUIPMENT INDUSTRY

1982 Developments

The year 1982 will undoubtedly be remembered as one of the most economically depressed years in the post-World War II era, and the motor vehicle industry will be remembered as the industry that suffered the most from the depressed economy. The combination of the recession, high interest rates, increased prices of new cars, and stiff competition from abroad all worked against the motor vehicle industry in 1982. These problems were not new—they had been growing since 1979. Nevertheless, some encouraging signs indicate that these problems are waning and that relative prosperity will again return to the U.S. motor vehicle industry in the next few years.

This section on the motor vehicle industry examines total U.S. motor vehicle sales and production, and also motor vehicle production in Michigan. Since the decline in activity in the motor vehicle industry in 1982 marked the fourth consecutive year of diminished activity, attention is focused on both the changes that occurred in 1982, as well as the changes that have taken place during the past four years.

Chart 1
U.S. Auto Sales, 1974-1982
(Seasonally Adjusted Annual Rates)



Source: Michigan Department of Management and Budget.

U.S. Automobile Sales

Total auto sales fell 6.4 percent to 7.98 million units in 1982, marking the fourth consecutive year that auto sales dropped from the preceding year, an unprecedented string of sales declines. To put the magnitude of these declines in perspective, new car sales hit 11.3 million units in 1978 compared with the 7.98 million units sold in 1982, which represents a deterioration in total auto sales of 29.4 percent over the four-year period. (See Table 22.)

Unfortunately, sales activity for domestic nameplate autos was even worse. In 1978, 9.3 million domestically built automobiles were sold; sales dropped to 8.33 million units in 1979, to 6.58 million units in 1980, to 6.21 million units in 1981 and to 5.76 million units in 1982. This represents a decline of 38.1 percent from 1978 to 1982.

TABLE 22
U.S. Motor Vehicle Production and Sales, 1979-1983
(Millions)

	1979	1980	1981	1982	1983[1]
Production	11.48	8.01	7.98	6.95	8.30
Passenger Cars	8.43	6.38	6.28	5.06	6.10
Trucks	3.05	1.63	1.70	1.89	2.20
Sales	14.13	11.21	10.79	10.54	11.70
Passenger Cars	10.65	8.98	8.53	7.98	8.80
Domestic	8.33	6.58	6.21	5.76	6.32
Import	2.24	2.40	2.32	2.22	2.48
Trucks	3.48	2.23	2.25	2.56	2.90
Domestic	3.01	1.80	1.81	2.15	2.48
Import	0.47	0.43	0.45	0.41	0.42

[1]Estimate.

Source: *Motor Vehicle Facts and Figures '82*, Motor Vehicle Manufacturers Association. *Automotive News*, Crain Automotive Group, Inc., selected issues. Estimates by the Michigan Department of Management and Budget.

The sale of imported autos survived these turbulent years much better. In 1978, imported auto sales totaled 2 million units and accounted for 17.7 percent of the total U.S. new car market. In 1980, while domestic auto sales fell 21 percent, imported auto sales rose 7.1 percent to 2.4 million units, capturing 26.7 percent of the total new car market. In only two years, the import share jumped a remarkable

9 percentage points. In 1982, the poor economy and high interest rates also affected import sales as they fell 4.3 percent to 2.22 million units, but their share of the total market continued to climb, reaching 27.8 percent.

The mix of autos sold during the years 1979 to 1981 shifted dramatically from full-sized cars to small-sized cars, and this is seen most clearly by comparing the domestic market shares of full-sized cars and subcompact cars. In 1979, only 12.9 percent of the domestically built autos sold were subcompacts and 20.6 percent were full-sized cars. By 1981, the subcompact share increased to 17.1 percent and the full-sized share fell to 15 percent. (See Table 23.) In 1982, the sales mix of new auto sales swung back to the full-sized car, which captured 19 percent of the U.S. new car market, while both the subcompact and compact shares declined. This could be due to the effects of the depressed economy on the budgets of small-car buyers. People who buy small cars tend to have relatively lower incomes than those who purchase full-sized cars. The recession may impose more severe constraints on their budgets, causing them to postpone the purchase of a new small car. Another factor that may have contributed to the swing back to larger cars is that the price of gasoline fell 5.2 percent in 1982, thus new car buyers may have discounted the need for a more fuel-efficient, small car.

TABLE 23
U.S. Motor Vehicle Sales Mix, 1979-1982
(Percent)

	1979	1980	1981	1982
Passenger Cars	100.0	100.0	100.0	100.0
Subcompact	12.9	15.4	17.1	16.7
Compact	20.9	21.0	20.2	17.5
Intermediate	23.8	21.4	20.4	19.0
Full Size	20.6	15.5	15.0	19.0
Import	21.8	26.7	27.3	27.8
Trucks	100.0	100.0	100.0	100.0
Light	75.7	69.7	70.2	78.0
Medium	4.4	3.7	3.3	1.7
Heavy	6.4	7.0	6.7	4.3
Import	13.5	19.5	19.8	16.0

Source: *Automotive News*, Crain Automotive Group, Inc., selected issues.

U.S. Truck Sales

Trucks sold surprisingly well during 1982, as unit sales totaled 2.56 million, up 13.8 percent from the 2.25 million units sold in 1981. The reason for this increase was the introduction of new compact pickups by each of the three major U.S. motor vehicle manufacturers, which resulted in a 17 percent increase in the sales of light trucks. Considering the weak nature of the national economy in 1982, the new compact pickups obviously met a need in the market place. Sales of medium and heavy trucks did not escape recessionary pressures as they dropped 38.3 percent and 9.3 percent, respectively. Of total truck sales, light trucks accounted for 78 percent in 1982, up from 70.2 percent in 1981; medium trucks totaled 1.7 percent, down from 3.3 percent; heavy trucks accounted for 4.3 percent, down from 6.7 percent; and imports captured a 16 percent share, down from 19.8 percent in 1981.

U.S. Motor Vehicle Production

With the dramatic falloff in motor vehicle sales in recent years, U.S. motor vehicle production has correspondingly fallen sharply. In 1978, again the best year in recent years, motor vehicle production totaled 12.9 million units. In 1980, the fall in sales pulled production down 38 percent from the 1978 level. In 1981, production fell another 0.4 percent to 7.98 million units, but the collapse of sales in 1982 reduced production to 6.95 million units, a decline of 12.9 percent from the 1981 level and a decline of 46.1 percent from peak output in 1978.

In addition to the falloff in sales in the U.S., motor vehicle production was also adversely affected in 1982 by the deterioration of net motor vehicle trade with Canada. (See Table 24.) During the past nine years, U.S. motor vehicle exports to Canada accounted for approximately 40 percent of the total vehicles that were traded betweeen the two countries. But during 1982, U.S. exports accounted for only 27.4 percent of total vehicles traded. This decline was due to the poor condition of the Canadian economy plus the low value of the Canadian dollar compared with the U.S. dollar, which drove up the price of vehicles imported from the U.S. 15 to 20 percent during the first part of 1982.

Michigan Motor Vehicle Production

Unfortunately, but not surprisingly, motor vehicle production in Michigan mirrored the national trend in 1982. Motor vehicle production in Michigan fell from 2.51 million units in 1981 to 2.36 million units in 1982, a 6 percent decline. (See Table 25.) Compared with 1979 when motor vehicle production in Michigan hit 3.53 million units, the 1982 production level was down 33.1 percent.

TABLE 24
U.S. and Canadian Motor Vehicle Trade, 1973-1982

Year	Vehicle Exports to Canada	Vehicle Imports from Canada	Total Traded U.S. & Canada	U.S. Exports as Percent of Total Trade
1973	596,562	1,077,667	1,674,229	35.6
1974	667,977	991,265	1,659,242	40.3
1975	683,054	894,572	1,577,626	43.3
1976	691,159	1,074,411	1,765,570	39.1
1977	721,151	1,179,586	1,900,737	37.9
1978	680,522	1,161,770	1,842,292	36.9
1979	740,491	930,617	1,671,108	44.3
1980	575,277	829,768	1,405,045	40.9
1981	543,597	820,076	1,363,673	39.9
1982	390,844	1,033,705	1,424,549	27.4

Source: *Motor Vehicle Factory Sales, U.S. & Canada*, Motor Vehicle Manufacturers Association of the U.S., Inc.

The production decline in 1982, compared to 1981, was due to a reduction in automobile assemblies, which outdistanced a gain in truck production. Passenger cars built in Michigan totaled only 1.78 million in 1982, down 13.2 percent from 1981 and 29.6 percent from 1979. Meanwhile, truck production rose to 580,000 from 460,000 in 1981, but was still down dramatically from 1979 truck production of one million units. Truck production in 1982 was enhanced by the fact that some of the new compact pickup trucks were produced in Michigan.

On the bright side of this otherwise dismal production experience in 1982, Michigan's share of national production increased for both automobiles and trucks. Passenger cars produced in Michigan accounted for 35 percent of national production, up from a 32.6 percent share in 1981 and the highest share since 1968. The share of trucks produced in Michigan rose from 27.4 percent in 1981 to 30.7 percent in 1982. Together these increases in the shares of autos and trucks produced in Michigan, boosted the national share of total motor vehicles produced in Michigan to 33.9 percent in 1982 from 31.5 percent in 1981. Therefore, while production was down in Michigan during 1982, it would have been down even further and would have had even more severe impacts on Michigan's economy if Michigan's share of total national production had not increased.

1983 Outlook

In 1983, the motor vehicle industry is expected to recover modestly due to the projected improvement in several key factors that have deterred consumers from purchasing new vehicles during the past few

TABLE 25
Michigan Motor Vehicle Production, 1979-1983
(Millions)

	1979	1980	1981	1982[1]	1983[1]
Production					
Passenger Cars	2.53	1.73	2.05	1.78	2.16
Percent of U.S.	30.0	27.1	32.6	35.0	35.4
Trucks	1.00	0.43	0.46	0.58	0.68
Percent of U.S.	32.7	26.5	27.4	30.7	30.7
Total	3.53	2.16	2.51	2.36	2.84
Percent of U.S.	30.7	27.0	31.5	33.9	34.2

[1]Estimate.

Source: Michigan Department of Management and Budget. *The Michigan Economy*, Wayne State University.

years. First, real disposable income, which remained flat in 1982, is forecast to rise once again in 1983. This increase will result from a continuing low level of inflation, coupled with modest increases in employment and earnings. Second, the decline in market interest rates during the last six months of 1982 lowered consumer loan rates. Lower rates are important to consumers as illustrated by the successful discount-financing programs offered by the auto companies in late 1982. Third, in addition to the expected rise in real disposable income and the decline in new car loan rates, the affordability of new cars will be enhanced in 1983 by modest price increases of approximately 2 percent for 1983 models.

The only major problem that has adversely affected the motor vehicle industry that is not expected to improve in 1983 is strong foreign competition. The drop in interest rates and the rise in real income will also benefit foreign motor vehicle sales in 1983. But the modest price increases on the 1983 U.S. model cars plus the falling value of the dollar compared with other currencies may help narrow the price gap between domestic and imported cars. In addition, the commitment of the U.S. manufacturers to improve quality and further downsize their fleets may help retard the import share of the U.S. market, but this will not occur in 1983.

Therefore, in 1983, total U.S. auto sales are forecast to rise 10.3 percent to 8.8 million units. Of this total, domestic auto sales are expected to reach 6.32 million units and imports are projected to capture 28.2 percent of total U.S. auto sales, or 2.48 million units.

TABLE 26
Michigan Motor Vehicle Production Mix, 1979-1982
(Percent)

	Model Years			
	1979	1980	1981	1982
Passenger Cars	100.0	100.0	100.0	100.0
Subcompact	0.0	0.0	13.2	11.4
Compact	35.7	40.4	34.2	25.8
Intermediate	18.7	24.9	23.2	26.0
Full Size	45.6	34.7	29.3	36.8
Motor Vehicles	100.0	100.0	100.0	100.0
Passenger Cars	69.6	78.2	78.2	75.4
Trucks	30.4	21.8	21.8	24.6

Source: Michigan Department of Management and Budget.

Truck sales are forecast to rise 13.3 percent to 2.9 million units due primarily to the continuing rise in the popularity of the new compact pickups. These sales increases will generate an estimated increase in U.S. motor vehicle production of 19.4 percent to 8.3 million units.

Motor vehicle production in Michigan will also benefit from the anticipated increase in motor vehicle sales. In addition, Michigan's share of total U.S. production is expected to increase in 1983 due to the recent closings of several assembly plants outside of Michigan and the opening of a new GM plant at Lake Orion which will produce a new front wheel drive car later in the year. As a result, auto production in Michigan is expected to increase 21.3 percent to 2.16 million units and truck production is forecast to rise 17.2 percent to 680,000 units. Total motor vehicle production in Michigan is therefore expected to reach 2.84 million units in 1983, an increase of 20.3 percent.

ENERGY

1982 Developments

Michigan energy supplies remained sufficient to meet demand in 1982. While supplies of distillate fuel oil fell below minimum operating levels in the spring, no consumer shortages resulted. Key developments during 1982 included a worldwide surplus of crude oil; falling gasoline prices; a reduction in Michigan energy dependence; and state legislation to eliminate automatic public utility fuel price increases, to regulate coal mining, and to increase the gasoline tax.

Michigan's energy dependence has declined slightly in recent years due to increased oil and gas production and reduced energy use. Michigan imported about 87 percent of its energy needs in 1982 from other states and nations. During 1982, Michigan crude oil production totaled 31.6 million barrels and natural gas production totaled 144 billion cubic feet. By 1990, Michigan may be importing 93 percent of its energy supply, assuming demand can be held near existing levels and Michigan energy production declines.

Michigan businesses and residents spent an estimated $18 billion for energy in 1982, with energy imports accounting for $8.9 billion of this total, an increase of 20 percent since 1980. If additional energy conservation measures were adopted, $1.5 billion of the amount paid to import energy could be saved annually. Energy conservation would not only reduce the dollars leaving Michigan but would generate some new jobs through greater demand for home insulation improvement programs and other energy-saving measures that require the use of local contractors.

State government has employed a number of programs to reduce the transfer of money from Michigan's economy to large energy-producing states and nations. Grants totaling $17.5 million were awarded to weatherize schools and hospitals in 1982 and an additional 10,000 low-income homes were weatherized through a Department of Labor program in 1982. The Residential Conservation Service program operated by utilities helped save Michigan homeowners nearly $7 million in 1982. During 1982, 4,500 solar energy tax credits were approved for the 1981 tax year, and the installed systems saved an estimated $1.2 million in energy use. A tax subsidy provided more than $7 million to encourage the use of gasohol in cars.

In 1982, the Legislature enacted new statutes to regulate the surface mining of coal; extend the tax break for gasohol; extend for one year the Governor's authority to respond to energy emergencies; increase gasoline taxes; and provide funding for mass transportation. Further discussion on fuel prices and other 1982 developments are highlighted in the following paragraphs.

Coal

Coal provides just over a quarter of Michigan's energy supplies and the state used an estimated 27 million tons of bituminous coal in 1982. Public utilities burned the bulk of the coal used in the state to generate electricity. Industry used the remainder, especially to produce coke used in making steel. Residential and commercial purposes accounted for 146,000 tons, or less than one percent.

The price of coal during the first half of 1982 averaged $46 per ton for Michigan utilities and $55 for industrial users, excluding coke plants. This is an increase from 1981 when the average price per ton was $41 for utilities and $51 for industrial users.

Crude Oil

Energy conservation, a drawdown of world oil stocks, and the weak world economy depressed the price of crude oil in 1982. The average international price of crude oil declined by $1.17 a barrel. In Janaury, 1982, world crude prices averaged $34.18 per barrel. The average price dropped to $33.05 by May and then leveled off for the remainder of the year. By February, prices fell to $32.58.

The decline in world oil demand has been caused by the weak world economy, energy conservation, and a drawdown in world oil stocks. The result has been a lowering of OPEC's official price for the first time in their 22-year history.

OPEC members lowered their official price for oil to $29 from $34 per barrel in March, 1983. It also set a collective production ceiling of 17.5 million barrels per day; however, at the time of this agreement, OPEC's production was approximately 14 million barrels per day.

Electricity

Electric power sales dropped nearly 5 percent in 1982 due primarily to the recession and the slump in industrial demand, particularly in the automobile industry. Continuing customer conservation also contributed to the decline in kilowatt-hour sales.

Revenues from the sale of electricity increased, however, due to rate increases and fuel and purchased power billing adjustments. The average cost of 500 kwh per month increased from $385 in December, 1981 to $438 in December, 1982. Although the number of electric power customers did not change in 1982, net plant investment grew substantially as construction on approximately 4,000 megawatts (Mw) of new base load generation continued. In 1982, there were four nuclear units operating in Michigan. Indiana and Michigan Electric Company owns the two 1,100 Mw units in Bridgman. Consumers Power Company owns the 740 Mw Palisades Plant in Covert and 63 Mw Big Rock Plant in Charlevoix County.

TABLE 27
Energy Sales and Customers in Michigan, 1981 and 1982[1]
(Millions)

	1981	1982[2]	Percent Change
ELECTRIC COMPANIES			
Electric Power Sales (Kilowatt-hours)	59,706	56,757	-4.9
Generating Capacity (Kilowatts)	15.2	15.0	-1.3
Net Plant Investment	$10,605	$12,189	14.9
Customers	3.1	3.1	--
GAS COMPANIES			
Gas Energy Sales (Cubic feet)	786,049	643,872	-18.1
Estimated Reserves (Cubic feet)	1,575,000	1,500,000	-4.8
Net Plant Investment	$1,732	$1,490	-14.0
Customers (Thousands)	2.2	2.2	--

[1]These figures are based on Michigan's two largest electric providers (Consumers Power Company and The Detroit Edison Company) and the state's two largest gas service providers (Michigan Consolidated Gas Company and Consumers Power Company). These companies account for more than 90 percent of such services rendered in Michigan.

[2]Estimate.

Source: Michigan Department of Commerce, Public Service Commission.

Fuel Oil

Fuel oil consumption, which includes kerosene, number 1 and number 2 fuel oil, and diesel fuel, declined 13 percent to an estimated 772.2 million gallons in 1982. Part of the decline can be explained by a 10 percent increase in average temperatures during the late 1982 heating season. Less economic activity also reduced diesel fuel consumption to an average of 21 million gallons a month, compared with the 1981 average of 23 million gallons a month. The demand for fuel oil depends heavily on the level of economic activity since industrial and transportation uses (trucks, railroads, ships) account for about 54 percent of distillate fuel oil consumed. The level of residential and

commercial use depends more on the severity of winter weather than on the level of economic activity.

In January, 1982, number 2 home-heating oil, excluding sales tax, cost $1.17 per gallon. Prices declined to a 1982 low of $1.10 by May. Lower prices caused demand to increase and inventories to fall below minimum operating levels. Minor spot shortages occurred as a result. Reduced supplies and increased demand caused prices to firm up, and by November, 1982, prices again averaged $1.17 a gallon. Above-average temperatures caused prices to taper off again so that by March, 1983, the price of home-heating oil was down to an average of $1.06. After inflation is accounted for, the real price of home-heating oil dropped 6 percent in 1982.

Gasoline

For the fourth consecutive year, gasoline use declined in Michigan. Gasoline consumption peaked in 1978 at 5 billion gallons and fell to 3.8 billion gallons in 1982, a 5 percent decline from 1981. (These figures include both taxed and nontaxed gallons.) The reasons for the decline include: a reduction in vehicle miles traveled; reduced economic activity and employment; and improvements in the average fuel efficiency of automobiles. Michigan's vehicle fleet averaged 15.5 miles per gallon in 1980, and 16.1 mpg in 1982.

Gasoline prices dropped during the first part of 1982. Between January and May, the average statewide price of unleaded gasoline declined by 10 cents per gallon. During the summer, price increases of about 10 cents offset this decline, but prices began to drop again by year end. Thus, the average price of unleaded gasoline began the year in January, 1982 at $1.45 per gallon and fell to $1.41 by January, 1983. When inflation is considered, the real price of gasoline dropped 7 percent during 1982.

Gasohol sales in 1982 increased 200 percent over 1981 sales, and accounted for 5 percent of total gasoline sales.

Natural Gas

Michigan natural gas consumption decreased in 1982 primarily due to load losses in the industrial market. Some industrial consumers also shifted to number 6 fuel oil and coal.

Based on an annual consumption rate of 165 million cubic feet, the average Michigan Consolidated Gas Company customer's bill increased $190 to $906 in December, 1982. Higher gas costs increased Consumers Power Company's average residential bill for the same period by $70 to $752. Total gas utility revenues increased about 16 percent because higher supply costs were passed on to customers.

Much of the price increase has been due to the Natural Gas Policy Act of 1978 which permitted the complete deregulation of certain types of natural gas and set up a system of monthly price increases for all other types of natural gas. Gas prices increased up to four-fold

TABLE 28
Regulated Public Utility Revenues, 1981 and 1982[1]
(Thousands)

	1981	1982[2]	Percent Change
ELECTRIC REVENUES			
Commercial Sales	$ 804,871	$ 867,705	7.8
Industrial Sales	1,258,522	1,267,691	0.7
Residential Sales	1,104,271	1,156,242	4.7
Other (Including Resale)	270,185	290,337	7.5
Total	$3,437,849	$3,581,975	4.2
GAS REVENUES			
Commercial Sales	$ 595,975	$ 684,481	14.8
Industrial Sales	645,722	622,883	-3.5
Residential Sales	1,263,600	1,470,379	16.4
Other (Including Resale less Refunds)	392,382	54,694	-86.1
Total	$2,897,679	$2,832,437	-2.3

[1]These figures are based on Michigan's two largest electric providers (Consumers Power Company and Detroit Edison Company), and the State's two largest gas service providers (Michigan Consolidated Gas Company and Consumers Power Company). These companies account for over 90 percent of the total electric and gas service rendered in Michigan.

[2]Estimate.

Source: Michigan Department of Commerce, Public Service Commission.

since deregulation was implemented in November, 1979; however, due to changing market conditions, natural gas prices at the end of 1982 were only 75 percent greater than the deregulated prices of November, 1979.

1983 Outlook

OPEC's agreement on a new price level and production quota should prevent an all out oil price war in 1983. If the March, 1983, agreement holds, oil prices should remain stable throughout the year. Oil imports will provide about 35 percent of domestic needs at a cost of approximately $71 million. The reduced price of oil should have a positive effect on both the Michigan and U.S. economies.

Although an improved economy will increase demand for gasoline, an increase in the proportion of fuel-efficient vehicles will result in a 2 percent net decline in gasoline consumption in 1983. Unleaded gasoline and gasohol should continue to comprise an increasing share of total sales. By mid-1983, unleaded gasoline will provide nearly 60 percent of Michigan gasoline needs. If the 1982 growth in the use of gasohol continues in 1983, gasohol could account for as much as 10 percent of all gasoline sales by the end of the year.

The drop in the price of crude oil is expected to decrease the price of gasoline; however, some of the potential decrease will not be realized at the retail level due to higher state and federal gasoline taxes. On January 1, 1983, the state motor fuel tax on diesel fuel, gasoline, and liquefied petroleum increased 2 cents per gallon, from 11 to 13 cents. The federal gasoline tax increased 5 cents per gallon on April 1, 1983, to a total of 9 cents per gallon. Thus, gasoline taxes in Michigan are now 22 cents per gallon plus the 4 percent sales tax.

Natural gas and electricity consumption are expected to increase in 1983 as the economy begins to strengthen. For 1983, the major electricity providers forecast operational reserves of 26 percent compared to approximately 34 percent in 1982. In addition, the Detroit Edison Company forecasts a late 1983 completion date for its 1,100 Mw nuclear unit in Monroe County. Consumers Power Company's Midland No. 2 plant is also expected to be completed then and its No. 1 plant is to be completed in 1984.

Natural gas supplies will be adequate to meet increased demand in 1983; however, significant increases in the cost of natural gas are expected. Nationally, increases of about 16 percent are expected. In Michigan, increases of 20 percent or above are possible. The increase will depend in part on the outcome of cases pending before the Federal Energy Regulatory Commission. The anticipated increases are due to additional imports of high-priced Canadian natural gas and liquefied natural gas (LNG) from Algeria.

FINANCE

1982 Developments

The Federal Reserve Board (Fed) was finally able to bring inflation under control in 1982 with the help of declining food and energy prices; however, the cost was high as the unemployment rate reached the highest level since 1941. The Fed kept a tight rein on money growth during the first half of 1982. After a large jump in January, there was little growth in the money supply (M1) for the next six months. With the economy extremely weak and inflation apparently under control, the Fed adopted a much more accomodative policy beginning in mid-summer. The sharp explosion in money growth over the last five months of the year is viewed by most Fed watchers as a deliberate easing of monetary policy; however, the Fed itself places less significance on this development as indicated by Chairman Paul Volcker in an October statement to the Business Council:

> The fact that, for the time being, underlying monetary growth and reserve provision cannot sensibly be gauged by directly observing movements in M1—up or down—is a technical fact of life; it has no broader policy significance.*

It is true that the maturing All-Savers Certificates contributed to the rapid growth of the money supply during the latter months of 1982; however, there has clearly been some easing by the Fed, evidenced in part by the reduction in the discount rate during the last half of 1982 from 12 percent to 8.5 percent. The Fed does not wish to give the impression that they have loosened too much as this could raise financial market fears about a resurgence of inflation.

The stated objective of Federal Reserve policy is to create an environment conducive to sustained recovery in business activity while maintaining the financial discipline needed to restore reasonable price stability. The Fed stuck to this policy in 1982, although they can be criticized for keeping interest rates too high for too long. One can argue, however, that the lack of discipline in fiscal policy was as much

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*_Federal Reserve Bulletin_, Board of Governors of The Federal Reserve System, November, 1982, pg. 692.

a cause of the economic difficulties of 1982 as was Federal Reserve policy. The Fed appeared to take this view as evidenced by the following statement in an August report on monetary policy:

> The present and prospective pressures on financial markets urgently need to be eased not by relaxing discipline on money growth, but by adopting policies that will insure a lower and declining federal deficit.*

The groundwork has been laid for noninflationary growth in 1983 and beyond, and 1982's bitter experience need not be repeated if the Fed resists pressure to ease too much and a more prudent fiscal policy is adopted.

Monetary Policy

There was a sharp contrast in monetary policy between the first half and the second half of 1982. In the first half of the year, the Fed was mainly concerned about inflation and tightly controlled the money supply. In the second half of the year, the Fed attempted to provide stimulus to the extremely depressed economy. This change in policy was partly in response to lower inflation, as the U.S. CPI increased at an annual rate of only 6.5 percent in the first six months of 1982, and slowed to an annual rate of 3.7 percent in the third quarter of the year.

The money supply (M1) jumped $7.4 billion in January and then increased only $4 billion, or at an annual rate of 1.2 percent, through July. For the remaining five months of the year, the money supply increased about $28 billion or at an annual rate of 14.8 percent. As mentioned above, this large increase was due partly to technical factors, but also represented an attempt by the Fed to drive down interest rates and revive a moribund economy.

The discount rate, the rate at which member banks can borrow from the Fed, peaked at 14 percent in May, 1981 and was reduced to only 12 percent by June, 1982. From July until the end of the year the discount rate was reduced seven times to a level of 8.5 percent, the lowest level since October, 1978. These reductions were partly in response to declines in market rates, but were also an attempt to lead rates downward.

The strong surge in the money supply (M1) in the last half of 1982 resulted in a growth rate for the year of 8.7 percent, well above the upper target level of 5.5 percent. (See Tables 29 and 30.) Nevertheless, this result is consistent with Chairman Volcker's public statements in July and October.

**Federal Reserve Bulletin*, Federal Reserve System, Board of Governors, August, 1982, pg. 449.

TABLE 29
U.S. Money Stock, 1981 and 1982
(Quarterly Percent Changes at Annual Rates, Seasonally Adjusted)[1]

1981	M1[2]	M2[3]	Monetary[4] Base
I	9.6	10.8	4.3
II	3.8	9.3	6.2
III	2.6	8.6	4.9
IV	9.0	10.0	5.1
Average	6.4	10.1	5.0
1982			
I	6.7	9.3	6.1
II	2.8	9.2	8.7
III	8.1	9.7	7.3
IV	16.2	8.5	7.4
Average	8.7	9.1	7.6

[1]Percent changes calculated from end of period to end of period.

[2]Includes currency and commercial bank demand deposits held by the nonbank public and other checkable deposits of all depository institutions plus travelers checks.

[3]M1 plus money-market fund deposits, savings and small time deposits, overnight repurchase agreements and Eurodollars.

[4]Includes reserve accounts of financial institutions at Federal Reserve Banks and currency in circulation.

Source: *Federal Reserve Bulletin*, Federal Reserve System, Board of Governors, selected issues, 1982; *Economic Indicators*, Council of Economic Advisors, December, 1982.

> Growth somewhat above the targeted ranges will be tolerated for a time in circumstances in which it appears that precautionary or liquidity motivations, during a period of economic uncertainty and turbulence, were leading to stronger than anticipated demands for money . . . Preferences for liquidity have in general been relatively strong, reflected in part in some abnormal pressures in parts of the private credit markets. In that

light, the fact that some of the aggregates have tended to run somewhat above the target ranges has been fully acceptable to the Federal Open Market Committee.*

Although the economy is still weak, there are signs of a revival in economic activity in response to lower interest rates, and inflation continues to abate. The Fed is likely to continue an accomodative policy for a while longer, although the growth rate in money should slow considerably.

TABLE 30
Comparison of 1982 Money Stock Growth Targets With Actual Money Stock Growth[1]
(Percent Change from December, 1981 to December, 1982)

	M1	M2	M3
Target	2.5-5.5	6.0-9.0	6.5-9.5
Actual	8.7	9.1	9.6

[1]Targets set by Federal Open Market Committee at February meeting.

Source: *Federal Reserve Bulletin*, Federal Reserve System, Board of Governors, selected issues, 1982.

Interest Rates

Considerable progress was made in 1982 in bringing nominal interest rates down to levels more conducive to economic growth, although real interest rates remained relatively high and this will dampen the expected economic upturn.

The pattern for 3-month Treasury bill rates is indicative of the pattern for most short-term rates. The three-month bill rate was slightly above 11 percent as 1982 began, down from a high of over 16 percent in 1981. The bill rate rose in the early weeks of 1982, peaking at slightly over 14 percent in February. The rate fell to about 12.25 percent in late February and ranged between 12 and 13 percent until mid-July. Short-term rates stayed high despite slowing inflation and the weak economy largely because of slow growth in the money supply, strong business loan demand, and concern about the size of the federal deficit. Business loans increased at an annual rate of more than 14

Federal Reserve Bulletin, Board of Governors of The Federal Reserve System, November, 1982, pg. 692.

TABLE 31
Market Interest Rates, 1981 and 1982[1]
(Percent)

	3-Month Treasury Bills	High-Grade Municipal Bonds	Corporate Aaa Bonds (Moody's)	Prime Commercial Paper 6 Months	Michigan New Home Mortgage Yields
1981					
I	14.37	9.93	13.16	14.52	15.91
II	14.83	10.61	13.98	15.35	16.40
III	15.09	12.01	14.92	16.21	18.02
IV	12.02	12.38	14.62	12.94	18.41
Average	14.08	11.23	14.17	14.76	17.19
1982					
I	12.90	12.90	15.01	13.70	17.39
II	12.36	12.29	14.51	13.48	17.43
III	9.71	11.28	13.75	11.55	16.89
IV	7.90	9.77	11.89	8.81	14.94
Average	10.72	11.56	13.79	11.89	16.66

[1]Quarterly and annual averages.

Source: *Economic Indicators*, Council of Economic Advisors, December, 1981. *U.S. Financial Data*, Federal Reserve Bank of St. Louis, selected issues. Federal Home Loan Bank of Indianapolis.

percent in the first six months of 1982. (See Table 32.) Beginning in early July, bill rates began a sharp, uninterrupted decline that ended in late August with rates at about 7.5 percent. This sharp decline was due to easing monetary policy, weakening business loan demand and an extremely weak economy which allayed financial market fears about renewed inflation. The demand for short-term business credit was reduced as corporate inventories were pared and economic activity continued at depressed levels. From August until the end of the year three-month bill rates fluctuated between 7.5 and 8.25 percent. Although small future declines are possible, this interest rate level appears consistent with current credit conditions and inflationary expectations.

As mentioned above, the discount rate was reduced seven times during the second half of the year, beginning at 12 percent and ending at 8.5 percent. The prime bank loan rate was raised several times early in the year, reaching a peak of 16.75 percent. Beginning in July, the rate was lowered a dozen times and ended the year at 11 percent.

TABLE 32

Business Loans at Commercial Banks, 1981 and 1982

(Quarterly Percentage Changes at Annual Rates, Seasonally Adjusted)[1]

Quarter	1981	1982
I	5.6	13.4
II	16.5	14.5
III	18.0	9.5
IV	-2.2	-0.1
Average	9.7	9.6

[1]Percentage change calculated between last months of quarter.

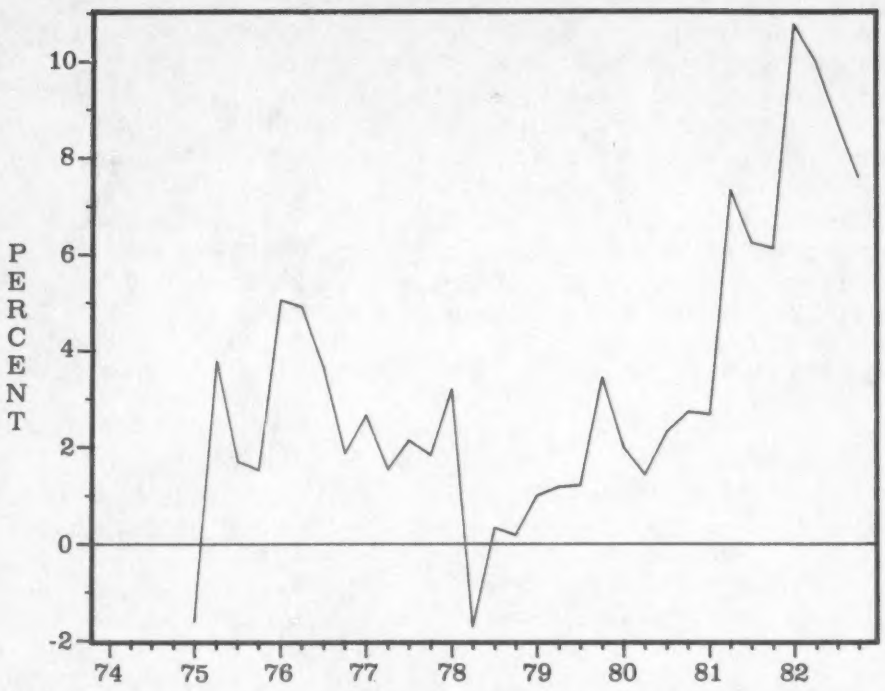
Source: *Economic Indicators*, Council of Economic Advisors, December, 1981.

Long-term interest rates proved to be much stickier than short-term rates, although there were fairly large declines in the last half of the year. Long-term rates remained high during the first half of 1982. In part, this reflected skepticism by market participants that the improved price performance would be sustained over the longer run and prospects of huge deficits in the federal budget even when the economy recovered. Triple-A corporate bond rates ranged between 14 and 15.5 percent from January until early July, when a steady downward trend began that carried rates to about 12 percent by mid-October. This decline was due largely to the weak economy and a reduction in inflationary expectations. Corporate bond rates were almost unchanged from mid-October until the end of the year. Municipal bond rates followed a similar pattern, although the decline in rates began earlier in the year. Municipal rates fell from about 13 percent in the early months of the year to 9.25 percent in October and then rose slightly to about 10 percent at year end.

Mortgage rates on new homes exhibited little movement until September, when a definite downward trend began. Effective mortgage rates offered by savings and loans in Michigan on conventional loans peaked at about 17.5 percent in the spring, began falling sharply in September, and averaged 14.28 percent in December. The housing market, which has been in a depression for three years, began to respond to these lower rates in the last quarter of 1982.

Long-term rates are higher than would normally be expected given the current inflation rate, as indicated in Chart 2. Nonetheless, investors appear to be demanding a higher risk premium than in previous years due largely to the volatility of interest rates in recent years and uncertainty about the future course of the economy.

Chart 2
Real Moody's AAA Corporate Bond Rates, 1970-1982



Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Savings Flows

Despite a sharp decline in the growth of disposable income from 11.2 percent in 1981 to 7.1 percent in 1982, time and savings deposits at U.S. financial institutions grew much faster in 1982 than in 1981, 9.2 percent compared with 6.4 percent. This improvement was due mainly to an increase in the saving rate and the slowdown in the growth of money market funds.

Regular savings deposits increased 16.5 percent, the first increase in five years. (See Table 33.) Savings deposits declined during the second and third quarters of the year as yields on competing investments continued to be higher; however, these deposits surged 67.6 percent, at an annual rate, in the last quarter, as the spread between passbook rates and market rates narrowed markedly in the second half of the year and the new money-market accounts attracted funds. These new accounts attracted over $40 billion in deposits in December. Certificates of deposit (large denomination time deposits) increased 10.8 percent in 1982, well below the 1981 increase of 16.4 percent, but the sixth consecutive double-digit increase. Deposits actually fell 7.9 percent, at an annual rate, in the last quarter of the year, as interest rates on 90-day certificates of deposit fell from 15 percent in July to

about 8.5 percent at year end. The growth of small denomination time deposits slowed even more, increasing only 5.8 percent in 1982 compared with a 13.7 percent increase in 1981.

Money-market funds continued to attract large sums of money in 1982, but the rate of growth slowed sharply from the last few years. As was the case with large CDs and small time deposits, the growth rate slowed dramatically in the last four months of the year as the interest rate offered by this form of investment slid to the lowest level since a brief period in mid-1980.

Unlike the national experience, saving deposit growth at Michigan financial institutions slowed from 6.5 percent in 1981 to 4.3 percent in 1982 due to the weakness in Michigan personal income. (See Table 34.) Time and savings deposits increased 6.7 percent above the 1981 level at commercial banks and 13.5 percent at credit unions. Deposits at savings and loan associations fell $500 million or 3.1 percent below the

TABLE 33
U.S. Financial Deposits, 1981 and 1982
(Quarterly Percent Changes at Seasonally Adjusted Annual Rates)[1]

	Savings Deposits	Small Denomination Time Deposits[2]	Large Denomination Time Deposits	Money-Market Mutual Fund Shares
1981				
I	-20.4	16.1	18.5	157.5
II	-12.4	12.0	23.4	66.0
III	-25.8	17.0	23.4	111.0
IV	0.6	7.1	-2.5	68.6
Average	-13.9	13.7	16.4	143.7
1982				
I	8.3	7.1	16.4	13.4
II	-0.9	14.3	20.1	24.3
III	-8.4	14.1	13.0	46.5
IV	67.6	-12.1	-7.9	-10.2
Average	16.5	5.8	10.8	19.3

[1]Percentage changes calculated between last month of quarters.

[2]Deposits issued in amounts of less than $100,000.

Source: *Economic Indicators*, Council of Economic Advisors, selected issues, 1982.

TABLE 34
Time and Savings Deposits at Michigan Financial Institutions, 1976-1982
(Billions)

	1976	1977	1978	1979	1980	1981	1982
Commercial Banks	$21.9	$24.1	$26.6	$29.1	$31.0	$34.2	$36.5
Savings and Loans	10.2	11.8	13.2	14.4	15.9	15.9	15.4
Credit Unions	2.4	2.8	3.2	3.5	3.6	3.7	4.2
Total	$34.5	$38.7	$43.0	$47.0	$50.5	$ 53.8	$56.1

Source: Federal Deposit Insurance Corporation; Federal Home Loan Bank of Indianapolis; Michigan Credit Union League.

year-ago level, the first decline since the data were first collected in 1950; however, about $450 million of this decline was due to the merger of a Southfield saving and loan into a New York saving and loan as these savings are no longer included in the Michigan total. On an adjusted basis, saving still fell 0.3 percent below the December, 1981 level. The main reasons for this decline were strong competition from money-market funds and commercial banks, the weak economy, and the poor financial condition of many S & Ls which may have scared away some depositors. Also the S & Ls have not been able to compete as aggressively for short-term money as commercial banks because they were locked into a large number of low-interest home mortgages and could not afford to pay the high rates required to attract these funds. (See Table 35.) This situation has been gradually improving, however, as low-interest mortgages have become a smaller percentage of S & L portfolios.

There is also new legislation that should help improve the financial condition of thrift institutions. The Garn-St. Germain Depository Institutions Act of 1982 is the most comprehensive piece of legislation addressing the thrift industry problems. This act authorizes the federal insurance agencies to provide capital assistance to financially weak institutions, permits inter-industry and interstate mergers in emergency situations, and authorizes a deposit account competitive with money market funds. This new money-market type account has no interest rate ceiling or fixed maturity and provides for up to six third-party transfers a month with a minimum investment of $2,500. The new act also allows thrifts to hold more commercial loans and preempts state laws that prohibit the endorsement of due-on-sale clauses in mortgage contracts.

In addition to the new money-market accounts the Depository Institutions Deregulation Committee also has authorized a "super NOW" account which provides unlimited transactions and has no interest rate ceiling if balances remain above $2,500.

These new accounts should slow the flow of funds into money-market funds and allow thrifts and commercial banks to capture more of the savings market, although one result may be a transfer from regular passbook savings accounts which will raise interest costs for these institutions.

TABLE 35
Savings and Small Time Deposits at U.S. Commercial Banks and Thrift Institutions, 1970-1982
(Percent Change from December to December)

Year	Commercial Banks	Thrift Institutions
1970	7.2	7.0
1971	16.6	17.0
1972	12.3	16.5
1973	5.1	8.1
1974	6.1	4.9
1975	16.9	15.3
1976	17.8	15.3
1977	8.2	13.2
1978	4.3	9.0
1979	7.6	5.0
1980	9.7	5.1
1981	7.9	1.3
1982[1]	13.8	3.8

[1]Deposit growth, at an annual rate, from December, 1981 to September, 1982.

Source: *Federal Reserve Bulletin*, Board of Governors of the Federal Reserve System, December 1982.

1983 Outlook

There is little question that for 1983 and beyond the Fed is committed to restraining money growth in order to achieve sustained noninflationary economic expansion. The Fed has indicated that the money targets for 1982 can appropriately remain as preliminary targets for 1983. (See Table 30.) If the Fed sticks to these targets this would result in a slower rate of growth of money than in 1982. Given the weak economic recovery expected in 1983, the Fed is likely to allow money to grow at or slightly above the upper range of the targets. The Fed will also be under pressure to accomodate the huge Treasury borrowing necessary to finance the federal deficit which is likely to exceed $200 billion in both fiscal year 1983 and 1984. The

Fed will have more room to let money grow at faster rates because of the marked decrease in inflation, which will take pressure off financial markets in two ways. First, lower inflation will lead to a reduced growth in transaction demands for money, given any particular level of real activity. As a result a given target for money growth can be achieved with less pressure on interest rates. Second, further progress in slowing inflation will help lower long-term interest rates by reducing the inflation premium contained in nominal interest rates.

If the economy shows signs of strength in 1983 and the threat of higher rates of inflation develops, the Fed can be expected to tighten up on the money supply. The Fed does not want to jeopardize the painful gains achieved in 1982 by loosening the reins too much. The Fed would be particularly cheered by a strong program of budget restraint which would minimize pressures in financial markets and enhance the prospects for a more vigorous recovery in home building, business fixed investment, and other credit-dependent sectors. This would take pressure off the Fed to allow a faster rate of growth in money in order to bring interest rates down even further.

There are two technical factors that will affect the growth of the money stock in 1983. First, the bulge in the money supply due to maturing All-Savers Certificates should have run its course. Second, the new money-market fund type deposit accounts being offered by bank and thrift institutions will depress M1 growth in the early months of the year; the impact on M2 and M3 will be much smaller.

Given all these considerations the most likely outcome is that M1 will increase 5.5 to 6.5 percent in 1983 and M2 will increase 9 to 10 percent.

Interest rates are expected to continue downward in 1983, although the declines will be much smaller than in 1982. There should be more stability in interest rates than in any year since 1978. This favorable outlook is based on the expectation of an inflation rate of 5 to 6 percent and continued weak credit demands as the economy recovers slowly. Long-term rates should fall slightly more than short-term rates as investors become convinced that renewed inflation is not likely in the forseeable future. Real interest rates, however, will still be high by historical standards, preventing a strong economic recovery in 1983. The major uncertainty is how much upward pressure will be placed on interest rates by the large federal deficits; however, this is not likely to be a major problem until 1984 when economic growth is expected to be more robust. The Morgan Guaranty Bank estimates Federal borrowing needs at $227 billion in 1983 compared with $217 billion in 1982 and only $132.6 billion in 1981. The increase from the 1981 level is expected to be largely offset by an $83 billion decline in business loans from 1981 to 1983 due to the weak economy, improved corporate cash flow and lower inflation.

The 90-day Treasury bill rate is expected to drop to 6.5 to 7.5 percent in the first quarter and remain in that range throughout the year. The discount rate is forecast to drop to 8 percent in the first quarter

and remain between 7.5 and 8.5 percent during the year. The prime rate is expected to average between 10 and 11 percent in 1983.

Triple-A corporate bond rates are projected to fall about 50 to 100 basis points by midyear and stabilize at 11 to 11.5 percent for the remainder of the year. Conventional 30-year mortgage rates, which averaged about 14 percent in December, are expected to fall to as low as 12.5 to 13 percent during 1983.

The rate of growth of U.S. and Michigan time and savings deposits in 1983 is likely to be higher than in 1982 as an expected decline in the saving rate will be offset by faster growth in disposable personal income and a slowdown in the rate of growth of money market funds.

CONSTRUCTION

1982 Developments

High interest rates thwarted a housing industry recovery in 1982. Housing starts nationwide fell 2.2 percent to 1.06 million units from 1.08 million units in 1981 and dropped to the lowest level in 36 years. (See Table 36.) The severe recession and high unemployment made it impossible for many potential homeowners to invest in new homes.

TABLE 36
U.S. New Private Housing Starts, 1973-1982
(Thousands)

Year	Housing Starts	Percent Change
1973	2,045.3	-13.2
1974	1,337.7	-34.6
1975	1,160.4	-13.3
1976	1,537.5	32.5
1977	1,987.1	29.2
1978	2,020.3	1.7
1979	1,745.1	-13.6
1980	1,292.2	-26.0
1981	1,084.2	-16.1
1982[1]	1,060.6	-2.2

[1]Preliminary.

Source: *Construction Review*, U.S. Department of Commerce, Bureau of Industrial Economics, Construction and Building Products Division, selected issues.

Constant-dollar expenditures for total new construction in the U.S. declined 7.3 percent in 1982. Private residential construction expenditures declined 15.4 percent. Despite a continued boom in office building, private nonresidential construction fell slightly because of high interest rates, low capacity utilization in capital-intensive industries, and low corporate profits. The poor financial conditions of many state and local governments and fewer federal outlays produced a 7.7 percent drop in public construction expenditures.

TABLE 37
Michigan Residential Building Permits, 1973-1982

Year	Private: Single-Family Units[1]	Private: Multi-Family Units[1]	Public	Total	Percent Change
1973	35,784	35,474	-0-	71,258	-7.0
1974	26,481	17,710	100	44,291	-37.8
1975	26,653	10,121	116	36,890	-16.7
1976	32,331	13,564	-0-	45,895	24.4
1977	41,314	17,370	-0-	58,684	27.9
1978	43,387	17,687	-0-	61,074	4.1
1979	33,959	15,298	48	49,305	-19.3
1980	17,870	11,106	852	29,828	-39.5
1981	11,624	6,739	305	18,668	-37.4
1982[2]	8,213	5,535	100	13,848	-25.8

[1]A housing unit is a single room or group of rooms intended for occupancy as separate living quarters by a family, by a group of unrelated persons living together, or by a person living alone.

[2]Preliminary.

Source: *Construction Review*, U.S. Department of Commerce, Industry and Trade Administration, November, 1982.

The Michigan construction industry virtually ground to a halt in 1982. For the fourth consecutive year, the number of total residential building permits fell, dropping 25.8 percent to 13,848 units in 1982. (See Table 37.) Permit activity stalled in February—only 183 building permits were issued. Michigan mortgage rates averaged 16.7 percent in 1982, pricing many homeowners out of the market. Although the average for the year was high, mortgage rates declined steadily each month, falling from 18.7 percent in November, 1981 to 14.3 percent in December, 1982. As a result, building permit activity, which fell below 1981 levels in every preceding month, began to recover in September. (See Chart 3.) Although building permit activity for the year was depressed, the increases in the final months of 1982 may portend the beginning of a long-awaited recovery of the Michigan construction industry.

The value of construction awards in Michigan in 1982 totaled $2.5 billion, 23.7 percent below 1981 awards. (See Table 38.) Residential awards declined 23.7 percent; nonresidential awards fell 14 percent; and public utility awards dropped 39.7 percent.

TABLE 38
Michigan Construction Contract Awards, 1962-1982
(Thousands)

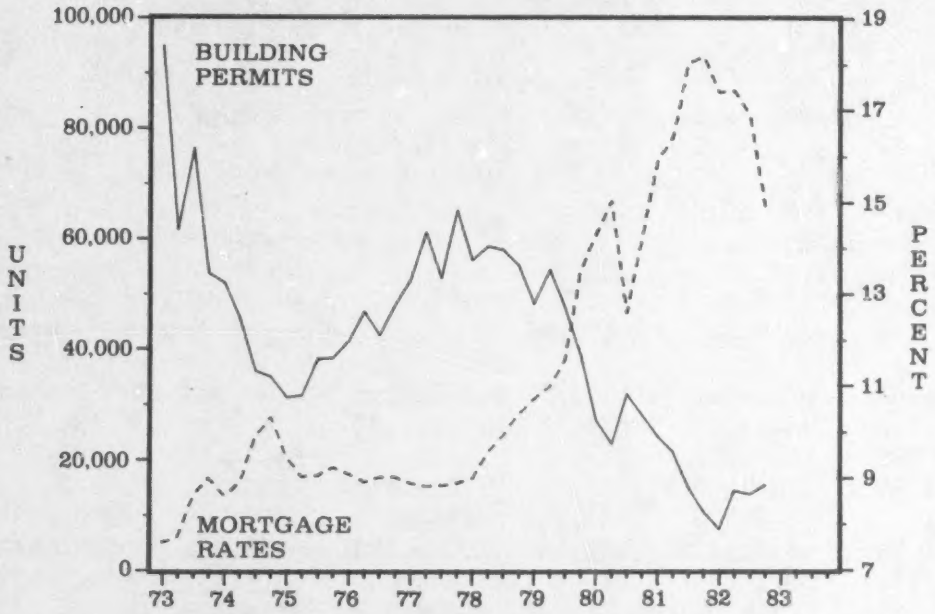
Year	Non-residential	Residential	Total Building	Public Works and Utilities	Total Construction
1962	$ 465,567	$ 541,802	$1,007,369	$ 346,143	$1,353,512
1963	558,207	658,930	1,217,137	267,038	1,484,175
1964	788,533	741,977	1,530,510	317,401	1,847,911
1965	766,258	1,038,356	1,804,614	465,073	2,269,687
1966	930,000	835,030	1,765,030	333,200	2,098,230
1967	946,513	1,020,000	1,966,513	357,000	2,323,513
1968	912,849	1,029,581	1,942,430	407,537	2,349,967
1969	962,697	891,531	1,854,228	874,715	2,728,943
1970	955,592	942,760	1,898,352	1,052,245	2,950,597
1971	874,058	1,319,978	2,194,036	840,719	3,034,755
1972	1,010,891	1,596,633	2,607,524	842,780	3,450,304
1973	1,206,481	1,856,354	3,062,835	1,299,276	4,362,111
1974	1,355,623	1,314,147	2,669,770	791,628	3,461,398
1975	951,139	1,089,145	2,040,284	1,146,796	3,187,080
1976	1,111,835	1,481,164	2,592,999	592,738	3,185,737
1977	1,525,733	2,144,489	3,670,222	604,463	4,274,685
1978	1,752,267	2,469,130	4,221,397	1,821,304	6,042,701
1979	1,975,434	2,392,063	4,367,497	889,324	5,256,821
1980	1,970,299	1,535,367	3,505,666	667,944	4,173,610
1981	1,336,850	1,122,958	2,459,808	798,406	3,258,214
1982[1]	1,149,956	856,444	2,006,400	481,218	2,487,618

[1]Preliminary.

Source: F. W. Dodge Division of McGraw-Hill Information Systems Company, special release.

In 1982, total contract construction employment fell to 86,900, a decline of 15.6 percent. Real average weekly earnings fell to $178.87 in 1982. Earnings peaked in 1972 at $230.09.

Chart 3
Michigan Residential Building Permits and Mortgage Rates, 1973-1982



Source: U.S. Department of Commerce, Bureau of the Census and Federal Home Loan Bank of Indianapolis.

1983 Outlook

While the decline in interest rates in 1982 spurred construction activity, sustained growth is contingent upon an end to the national recession. Double-digit unemployment rates may retard housing industry growth. Consequently, housing starts are expected to increase to only 1.3 million units. Growth in private nonresidential construction will be delayed until 1984 or 1985 when capacity utilization, employment, and profit rates will justify business expansion. After an unprecedented boom that began in 1977, the office building market faces some retrenchment in 1983. Public construction will remain depressed in 1983 and will only expand when the financial condition of state and local governments improves. There is a danger that the large federal government deficit could force interest rates up later in the year and this would thwart a sustained recovery in the construction industry.

The Michigan construction industry will recover slowly in 1983. Since mortgage rates will be significantly lower than in the last two years, building permits are expected to rise to near 1981's level of 18,668 units.

Construction employment will increase from 86,900 to 88,000 in 1983 and wage and salary payments will total $2.4 billion.

1982 Developments

This past year posed difficult problems for farmers both in Michigan and the rest of the country. A large supply of crops resulting from excellent harvests and decreased exports depressed prices for many crops. Weak crop prices, high interest rates, and rising input costs reduced net farm income. In addition, farm land prices declined more than 10 percent between late 1981 and late 1982. This decline eliminated a sometimes overutilized source of financing—borrowing against increased land values. Together, these factors placed a severe financial strain on many farm operators.

TABLE 39
Michigan Cash Receipts from Farm Marketing, 1981 and 1982
(Millions)

Period	Livestock and Products		Crops		Total	
	1981	1982[1]	1981	1982[1]	1981	1982[1]
Jan.	$ 95.9	$ 91.9	$ 143.5	$ 142.1	$ 239.4	$ 234.0
Feb.	83.6	85.2	95.5	93.6	179.1	178.8
Mar.	92.1	97.0	97.7	106.5	189.8	203.5
April	95.2	100.7	74.1	97.2	169.3	197.9
May	94.7	95.0	92.2	91.2	186.9	186.2
June	93.0	93.2	81.2	111.3	174.2	204.5
July	90.2	90.4	157.4	202.3	247.6	292.7
Aug.	94.7	97.3	165.9	144.3	260.6	241.6
Sept.	93.0	97.4	170.2	160.4	263.2	257.8
Oct.	95.5	97.0	193.0	172.4	288.6	269.4
Nov.	91.0	95.5	237.1	277.8	328.1	373.4
Dec.	92.2	94.5	170.3	160.0	262.5	254.5
Total	$1,111.1	$1,135.1	$1,678.2	$1,759.2	$2,789.2	$2,894.3

[1]Preliminary.

[2]Estimate.

Source: U.S. Department of Agriculture.

Receipts from agricultural marketings rose in 1982 by 3.8 percent to $2.9 billion as shown in Table 39. Livestock marketings increased by 2.2 percent while crop marketings rose by 4.8 percent. Most of the increase in agricultural receipts stemmed from production increases, since, as a result of increased supplies, prices received by Michigan farmers declined by 5.7 percent. This price decline combined with a 3.5 percent price increase for farm inputs squeezed farm income in 1982. Crop farmers were generally harder hit, as crop prices declined the most. The price support levels for several commodities including milk and feed grains were lower during the last two years although total government outlays rose as surpluses increased and prices declined. The result was a decline in net farm income of an estimated 19 percent to $384 million.

Table 40 examines the price patterns of several of the most important agricultural commodities in Michigan. Corn, the most important field crop in Michigan, declined over 20 percent in average price from the preceding year. Of the important field crops listed in Table 40 only baled hay increased in price. Dry beans and potatoes, important Michigan crops, declined in price even more sharply than field grain crops. While bean and potato prices trended lower throughout the year, grain prices stabilized by year end.

Among major livestock products, hogs and beef cattle rose moderately in price, while eggs and milk declined slightly in price. Higher livestock prices combined with lower prices for feeds, such as corn and soybeans, made hog production profitable in 1982 and aided other livestock producers. The decline in milk prices combined with changes in milk price supports, put some pressure on dairy profit margins. This pressure was offset somewhat by declining feed costs.

Michigan farmers produced record corn and soybean harvests in 1982. The corn crop yielded a record 109 bushels per acre, up 13 bushels from 1981, resulting in a 12 percent rise in total production. The Michigan soybean crop also set a record in 1982 with increases in both acreage and yield per acre. The nation also set records for both corn and soybeans. These record crops, combined with declining exports and large surpluses from the previous year caused the drop in corn and soybean prices mentioned above.

The Michigan winter wheat crop was damaged by bad weather last winter and spring, falling 41 percent from the 1981 record level. National wheat crops were much better than the crop in Michigan, resulting in lower prices.

The major Michigan tree fruit crops all increased production except for plums which were off slightly from good production levels in 1981. This production increase was due to excellent weather throughout the growing season. The 950 million pounds of apples were the largest crop this century in Michigan. The tart cherry crop nearly tripled and Michigan produced 84 percent of the national crop.

The number of farms in Michigan declined to 65,000 in 1982 down 1,000 from 1981--the first decline since 1978. The average size of a Michigan farm rose slightly to 177 acres.

TABLE 40
Prices Received by Michigan Farmers, 1982

Month	Corn Per Bu.	Wheat Per Bu.	Oats Per Bu.	Dry Beans Per Cwt.	Soybeans Per Bu.	Potatoes Per Cwt.	Baled Hay Per Ton
January	$ 2.32	$ 3.52	$ 2.18	$29.60	$ 6.05	$ 5.75	$67.00
February	2.31	3.27	2.23	27.70	5.90	6.25	70.00
March	2.31	3.38	2.30	25.40	5.93	6.75	71.00
April	2.49	3.22	2.28	24.00	6.14	6.70	82.00
May	2.45	3.20	2.29	23.20	6.24	6.90	82.00
June	2.52	3.21	2.18	20.10	6.10	8.00	51.00
July	2.48	3.29	1.44	17.80	5.92	9.00	42.00
August	2.26	3.30	1.40	16.80	5.38	4.90	53.00
September	2.16	3.23	1.32	14.50	5.10	4.50	53.00
October	1.86	2.79	1.22	12.90	4.94	4.35	53.00
November	2.03	3.00	1.47	10.60	5.20	4.50	62.00
December	2.05	3.00	1.47	10.00	5.20	4.50	62.00
Average	$ 2.27	$ 3.20	$ 1.82	$19.38	$ 5.68	$ 6.01	$62.33

Month	Hogs Per Cwt.	Beef Cattle Per Cwt.	Steers & Heifers Per Cwt.	Slaughter Cows Per Cwt.	Calves Per Cwt.	Wholesale Milk Per Cwt.	Eggs Per Doz.
January	$44.60	$45.80	$53.50	$36.80	$54.00	$14.10	$ .60
February	49.00	44.90	53.70	37.30	52.00	14.10	.59
March	48.70	48.70	60.90	41.30	57.60	13.90	.64
April	51.40	53.10	64.70	44.50	58.00	13.70	.50
May	56.90	54.20	60.30	44.30	59.90	13.30	.45
June	58.30	51.90	60.00	43.00	64.90	13.20	.40
July	58.60	51.10	58.00	41.80	59.40	13.20	.44
August	61.30	48.00	56.00	40.50	59.30	13.20	.39
September	60.90	47.90	54.70	39.30	59.00	13.50	.46
October	55.20	47.00	52.30	38.80	54.80	13.70	.46
November	52.30	42.20	49.90	36.00	50.90	13.90	.46
December[1]	52.60	42.20	49.20	35.80	48.30	14.00[2]	.44
Average	$54.15	$52.60	$56.10	$39.95	$56.52	$13.65	$ .49

[1]December 15th price.

[2]Data for whole month.

Source: *Agriculture Across Michigan*, U.S. Department of Agriculture and Michigan Department of Agriculture, Michigan Agricultural Reporting Service, selected issues.

1983 Outlook

Gross farm receipts in Michigan are estimated to increase by only 3 to 4 percent above the 1982 level. This forecast assumes reduced production for several commodities and only modest price improvement. Production will fall because it is unlikely that as many crops will reach the near record levels of 1982. In addition, it now appears certain that the main income support program for farmers will be a Payment-In-Kind (PIK) program. Under a PIK program, the federal government will pay farmers in farm commodities as well as cash for cutting back acreage. This program is expected to reduce production of several crops, including corn, by up to 10 percent nationally. If Michigan farmers choose to participate, Michigan production levels will also drop.

Michigan livestock receipts will rise in 1983, in part, because hog numbers as of December were 10 percent above 1981 levels while both U.S. and midwest numbers fell. Feeder cattle may also increase in numbers because of lower feed costs. Nationally, cattle numbers are falling, suggesting herd growth is slowing because of weak red meat demand. Overall, red meat demand cannot be expected to recover until income growth becomes more pronounced later in 1983.

Despite a more aggressive acreage reduction price support plan from the federal government, crop prices will recover only moderately. Two factors will hold down prices: weak export demand and large surpluses. Factors reducing exports will be the weak world economy, competition from other agricultural producers, and debt problems in East Europe and some Latin American countries, although a lower value of the dollar, moderate economic recovery in the developed countries, and increased exports to Asia will offset part of the reduction in exports. Large surpluses will also hold down crop prices. For example, corn surpluses equal 48 percent of expected utilization in 1983. Wheat surpluses are at 61 percent of projected utilization. As a result, corn prices will about equal the average price for 1982 and wheat prices will improve only slightly. Soybean prices are likely to improve marginally from late 1982 levels to a range of $5.25 to $5.75 per bushel, depending on the size of South American crops.

Hog prices are expected to rise an estimated $4 per hundredweight by late 1983 while cattle prices may rise $2 to $3 per hundredweight.

Overall, livestock producers can expect to make moderate profits in 1983. The financial situation for crop farmers will remain difficult since PIK will not have a major price impact until 1984 and exports will remain weak in 1983. Net farm income is estimated to rise 10 percent to $422 from the depressed levels of 1982, in part because of lower costs, particularly for interest and fuel.

MINERAL SUPPLIES AND MINING

1982 Developments

The continued recession during 1982 lowered both mineral production and prices. The weak demand for construction materials and consumer durables depressed mineral production because these sectors provide major markets for mineral products. As a result, Michigan industries were able to obtain mineral supplies at lower prices in 1982.

The total value of mineral production in Michigan fell by 15.5 percent as shown in Table 41. The bulk of this decline resulted from production cutbacks. This reduction in quantity was caused by weak demand and by prices that dropped below the break-even point for many nonfuel, nonmetallic minerals and for copper and iron. These results represent a continuation and worsening of the weak performance in 1981 when quantity produced also fell for most mineral commodities.

The Michigan iron ore industry reflected the overall distress of the world steel industry. Final demand for steel in construction and transportation industries has been weakening for several years and, in 1982, oil well equipment and machine tools also turned downward. As a result, steel industry capacity utilization fell below 40 percent late in 1982. Some older mills were closed permanently reflecting a belief that some decline in demand was permanent. The Michigan iron ore industry reflected these problems with an estimated 57 percent decline in production. The Hanna Mining Company permanently closed the Groveland mine and mill. Other mines in the upper peninsula were temporarily closed or placed on shortened production schedules. The White Pine Copper Mine also closed for six months starting October 1, 1982.

Production of nonfuel, nonmetallic minerals fell by 25.8 percent, a moderate decline compared with the drop for iron ore, although these minerals had declined greatly during the 1979-81 period. This decline arose from weak demand in the construction industry and the industrial chemical industries that are major markets for nonmetallic minerals. The depth of the decline was severe enough to endanger the ability of some production facilities to continue operations. Also, prices still rose by a small amount for many commodities suggesting an inability to cut costs.

The production of petroleum and natural gas also fell, but this reflected the failure of exploration and development to replace declining wells. This drop in production was aggravated by a weakening in petroleum prices after midyear and uncertain price and regulatory developments for natural gas. Natural gas faced a situation of partial price decontrol and contract requirements that caused rising prices in

TABLE 41
Michigan Mineral Production, 1981 and 1982

Mineral	1981 Quantity	1981 Value (Million)	1981 Percent of Total Value	1982 Quantity	1982 Value (Million)	1982 Percent of Total Value	Percent Change in Value 1981-82
Metallic							
Copper: recoverable content of ores (short tons)[1]	43	$ 80.0	2.7	32	$ 35.9	1.5	-55.1
Iron ore: useable, gross weight (thousand long tons)	15,602	687.1	23.5	6,700	313.0	12.6	-44.4
Total Metallic Value		$ 767.0	26.2		$ 348.9	14.1	-54.5
Nonmetallic							
Fuels							
Natural Gas (million cubic feet)	152,593	$ 436.9	14.9	143,319	$ 460.6	18.6	5.4
Petroleum (thousand 42-gallon barrels)	32,664	992.4	33.9	31,596	1,036.3	41.9	4.4
Subtotal Fuel Value		$1,429.3	48.8		$1,496.9	60.5	4.7
Other Nonmetallics							
Cement	4,044	$ 191.2	6.6	3,230	$ 155.4	6.3	-18.7
Masonry (thousand short tons)	173	10.6	0.4	130	8.1	0.3	-23.5
Portland (thousand short tons)	3,871	180.6	6.2	3,100	147.3	6.0	-18.5
Clay (thousand short tons)	1,610	5.9	0.2	969	4.0	0.2	-31.7
Gypsum (thousand short tons)	1,066	6.8	0.2	1,038	6.9	0.3	2.2
Lime (thousand short tons)	807	36.8	1.2	680	32.6	1.3	-11.5
Natural Brines[2]	1,183	193.6	6.6	1,038	195.1	7.9	0.7
Peat (thousand short tons)	237	4.54	0.2	268	5.1	0.2	13.3
Salt (thousand short tons)	2,321	103.3	3.5	2,030	86.9	3.5	-15.7
Sand and Gravel (thousand short tons)	32,893[e]	95.8	3.3	24,000	72.4	2.9	-24.4
Stone	30,019	94.5	3.2	21,784	70.9	2.9	-24.9
Dimension (thousand short tons)	30,013	94.3	3.2	21,780	70.8	2.9	-24.9
Crushed (thousand short tons)[3]	6	0.1	--	4	0.1	--	-14.7
Subtotal Other Nonmetallic Value		$ 732.4	25.0		$ 629.3	25.4	-14.1
Total Nonmetallic Value		$2,161.7	73.8		$2,126.2	85.9	-1.6
Grand Total		$2,928.8	100.0		$2,475.1	100.0	-15.5

[1]Includes silver.

[2]Includes bromine, calcium cloride, iodine, and magnesium.

[3]Includes marl.

[e]Estimate.

Source: U.S. Bureau of Mines and Michigan Department of Natural Resources, Geological Survey Division.

the face of short term oversupply, creating uncertainty in the market place. This situation slowed efforts to explore deep oil and gas and hindered the development of small properties.

The supply of nonferrous metals remained adequate with inventories of aluminum and lead being excessive. Depressed demand conditions resulted in plant closings and production cutbacks. Prices averaged lower for all major nonferrous metals in 1982 compared to 1981. Copper mining approached conditions of near depression while aluminum and lead production were severely depressed. Only zinc production showed any ability to maintain production and prices near previous levels.

1983 Outlook

The lowering of interest rates and signs of recovery in automobile and residential construction offer hope for a mild recovery in the mining and mineral product industries. This will be blunted by continued declines in industrial and commercial construction, and capital investment which will lag the recovery because of large excess capacity in many industries. The steel industry will also recover very slowly during 1983 and will remain at depressed levels until late in the year.

Under the economic situation outlined above, the Michigan mineral industry can expect a partial recovery from the depressed levels of 1982. A 12 percent rise in the value of mineral production is forecast, bringing the value of Michigan mineral production to an estimated $2.8 billion. The recovery will be led by nonmetallic, nonfuel minerals, especially those related to residential and transportation construction. Most of the improvement will occur in the second half of the year.

The iron ore industry also will improve later in the year. During the early part of the year inventory carryovers and import competition will blunt the demand for iron ore. Recovery of the iron ore industry also requires the steel industry and the United Steel Workers to reach an early settlement in 1983 without a strike and that the settlement help control production costs.

Oil and gas production will probably decline slightly during the year. Oil prices also are likely to decline a small amount especially during the early part of the year when the world economy is expected to be very weak. Gas prices are expected to rise despite temporary oversupply, although even here the rate of price increase will slow from 1982 in the national market.

The partial recovery will still leave mineral industries in Michigan with excess capacity and will not quite increase the value of mineral products to 1981 levels. Somewhat encouraging is the fact that approximately one-half of the recovery will be accounted for by production increases rather than price increases alone, as had been the case during several recent years including 1981.

Supplies of minerals and mineral products for Michigan industry are expected to be adequate in 1982. As the economy recovers in 1982,

crude goods and intermediate goods will record some price increases. These categories normally increase in price very early in an economic recovery; however, because of large excess capacity for most of these commodities, price increases will range between 5 to 6 percent for both metals and metal products and nonmetallic minerals and supplies taken as a group. Only in the case of zinc is capacity likely to be reached. This could pose some problems late in the year for galvanized steel, a commodity increasingly used in automobile manufacturing. Speculation on future inflation might raise a few commodity prices, particularly for copper and platinum.

The steel industry will have excess capacity both within the United States and abroad. The closing of some older mills will increase the efficiency of the industry while reducing excess capacity. This will moderate any price increases until capacity is reached. Aluminum is in a similar situation although it is steadily losing its favorable electrical price advantage in the Pacific northwest and Tennessee Valley.

In summary, most minerals and mineral products should be in adequate to excess supply at moderate prices for Michigan industry in 1983. Some mineral industries are so depressed that continued survival of much of their capacity depends on the strength of the economic recovery.

TRANSPORTATION

1982 Developments

Income for Michigan's transportation systems continued a downward slide in 1982, but enactment of transportation legislation by Congress and the Legislature in their post-election sessions late in the year will reverse the decline in 1983. As in previous years, revenue losses resulted chiefly from a steady growth in the number of light-weight, fuel-efficient automobiles. Smaller vehicles consume less fuel and bring in less weight tax revenue, the two main income sources for highways, roads, streets and state-support of public transportation systems. Travel also declined slightly during the year, dropping from an estimated 62 billion miles to 61.3 billion, approximately the same as in 1980 and six billion miles under the record set in 1978 before the onset of the current economic recession.

Gasoline consumption fell to the lowest level in 13 years, slipping by 116 million gallons to 3.63 billion. The total was 964 million gallons less than in the peak year of 1978.

Revenue collections from fuel taxes, license plate fees and other sources totaled $664.3 million in the 1982 fiscal year, or $18.6 million less than the previous year, $74.2 million less than in fiscal 1980, and $96.5 million less than in fiscal 1979.

The net loss of four percent for all fuel taxes, including diesel, was partially offset by a 1.6 percent increase in weight tax revenue. Growth in motor vehicle registrations, which climbed from 6,861,667 in fiscal 1981, a five-year low, to 7,179,316, accounted for the increase. The latest total is 152,000 less than the record posted in 1980. Auto, truck and trailer registrations all increased in 1982 while motorcycles continued a 10-year decline, dropping to 230,794.

The impact of dwindling revenues showed up in all areas of publicly supported transportation systems. Maintenance and improvements on state, highway, county road and local street systems (totaling 117,000 miles) were reduced even below the levels of the previous year as agencies attempted to cope with rising costs and reduced income. Fare increases or reduced services were ordered on a number of bus systems statewide.

Aviation

Aviation activity continued its decline in Michigan during 1982 due to deregulation, fuel prices and availability, and the weak economy. An analysis of the four measures of aviation activity reveals that the number of airline passengers, airline cargo, and control tower operations fell, while the number of registered aircraft remained the same.

Passengers at Michigan's 23 airports providing scheduled airline service totaled 11.1 million for the 12-month period ended September 30, 1982, compared with 11.3 million for the same period in 1981. Michigan's reduction is about one-third of the 5.2 percent decrease nationwide. Despite these declines, in the past five years, the number of airline passengers in the state increased 9.4 percent.

Small regional airlines now serve 16 airports in the state and are the only carrier at eight of them. Their market share continues to increase, not only because they replaced major carriers which abandoned service in some locations, but because they provide supplemental service at some of the larger markets, such as Lansing, Saginaw and Traverse City. In fiscal 1982, regional airlines carried 765,225 passengers in Michigan, an increase of 80.4 percent over the previous 12-month period.

In addition to the decline in the overall number of passengers, the number of control tower operations decreased 20 percent. Airline cargo, highly dependent on the auto industry, also declined, by 13 percent. The number of registered general aviation aircraft in the state stood at 7,056, which is approximately the same as the year before.

Highways

No new freeway sections were opened in Michigan in 1982, the first time that has occurred since construction of the 42,500-mile national Interstate Freeway System began in 1956. The total length of the state freeway system, including those not on the Interstate network, remains at 1,728 miles.

More than 95 percent of Michigan's 1,179-mile Interstate system is open to traffic, with only the final 7.9 miles of I-696 through south Oakland County and the middle 41 miles of I-69 from Charlotte north and east to Perry remaining to be built. Construction is nearly complete on the 8.5-mile I-69 section connecting I-96 and US-27 north of Lansing, with an opening in sight as early as the end of 1983. Work also continued on M-21 Freeway between M-53 and Imlay City and the existing freeway at Wadhams near Port Huron, leaving only the 13-mile section from M-24 at Lapeer east to Imlay City to be started. Construction also progressed on US-131 Freeway, to extend it north from its existing terminus near Stanwood in Mecosta County to Big Rapids.

The Michigan Department of Transportation, pursuing a policy set in 1977, is concentrating on maintenance and operation of the 9,475-mile state highway system rather than on expansion. Freeways being built are to close gaps in the existing system.

Maintenance costs on the state highway system increased 5.5 percent to a record $117 million. However, construction costs declined very slightly, mainly because of keen competition among contractors bidding on a reduced number of jobs.

Freight Program

The 690-mile, state-subsidized rail freight system provided services throughout the state, including areas without alternative rail systems and all-weather roads. Service on this system was provided to approximately 350 rail users, thus supporting employment and providing an important transportation structure necessary for industrial and agricultural development.

The decline in Michigan's economy, particularly in the automotive and construction industries, as well as the national recession, adversely affected the volume of traffic handled on all of the state's 4,200 miles of rail trackage. (Carriers abandoned another 423 miles of track in 1982.) On the state-subsidized system, the volume of traffic handled fell about 32 percent from fiscal 1981.

Intercity Passenger Programs

State-supported intercity passenger travel includes railroad and bus programs. During the 1982 fiscal year, approximately 161,000 passengers were carried on state-supported intercity bus projects, down from 275,000 in 1981. About 200,000 passengers traveled aboard state-supported passenger rail services, approximately the same as in the previous year. Also in 1982, construction of public transportation centers in Marquette and Alma was finished. Construction continued on an intermodal facility in Pontiac and a new Amtrak passenger station in Ann Arbor was ready for opening early in 1983.

State funds with local match provided for the facilities at Alma and Pontiac. Cost of the Marquette center and Ann Arbor station was shared 50-50 with the federal government.

Local Transit

The state continued to support local transit agencies and authorities providing public transportation services. Financial support was provided to 42 recipients of formula operating assistance, to 30 other public transit systems founded since 1978 and to 32 systems established for seniors and handicappers. Ridership on local bus systems declined somewhat during the year.

Ridesharing

The state continued its efforts to reduce traffic congestions, energy consumption, and commuting costs by promoting a variety of ridesharing services to residents of Michigan. Ridesharing offices in Ann Arbor, Detroit, Flint, Grand Rapids, Kalamazoo and Lansing are sponsored by the state transportation department to provide carpool, vanpool and transit information services to employers and employees.

A total of 360 employer-sponsored and state-sponsored vanpools provided nearly 2 million passenger trips during 1982. It is estimated that these vans save over 1.5 million gallons of gasoline annually.

The statewide vanpool program called MichiVan grew during a period of stable energy supplies, declining gasoline prices and reduced employment statewide. MichiVan has grown to a current total of 54 vans serving over 680 persons. MichiVan is a service available to groups of nine or more persons traveling similar routes to and from work.

The State Employee Vanpool Program continued to be one of the largest for public employees in the United States. Reduction in the state work force and associated personnel moves resulted in a 30 percent reduction in the fleet size. By the end of 1982, the program operated 70 vanpools serving nearly 700 employees.

1983 Outlook

Transportation activity will depend on the extent to which the economy recovers. Nevertheless, improved funding for basic transportation facilities was assured by approval of tax increases on highway users at the state and national levels. The new money will enable the state, county and municipal road agencies to regain some ground lost to inflation in recent years at the same time that income was falling. A sizable boost in federal aid will step up the program for replacement of some of the oldest and most inadequate bridges and allow the state to improve some of its worn-out highways.

The dollar volume of federal aid contracts will more than double in 1983, going from $146 million in 1982 to an estimated $315 million. Of that amount, $235 million will be for work on the highway system and $80 million for county roads and city streets. Michigan is one of the big winners from a provision in the new federal legislation which requires all states to receive at least 85 percent of the money its motorists pay in federal gas and excise taxes. The state has long been a "donor" to the federal highway trust fund, receiving only 83 cents of every dollar in federal taxes from 1956, when the fund was established, through 1981.

Public transportation systems will benefit from action by the Legislature raising the portion of state gas and weight taxes earmarked for public transit and rail programs from 8.3 percent to the full 10 percent allowed by the State Constitution. Most of the $17.5 million increase projected for fiscal 1983, raising the total from $50 million to $67.5 million, will be channeled to local bus systems to assist them in maintaining services. State bus, rail and port programs also receive a share of state sales tax revenue generated by sales of fuel and auto-related products.

Newly effective deregulation of the intercity bus industry nationally will effectively reduce or eliminate intercity service in some parts of the state, particularly low-population areas where patronage has been insufficient to allow the bus companies to make a profit.

TOURISM

1982 Developments

While the travel industry continued its downward spiral across the nation in 1982, it held its own in Michigan, generating an estimated $450 million in state revenues and topping an estimated $10 billion in total expenditures for the second consecutive year.

The United States Travel Data Center predicted a 1982 decline of 9 to 11 percent for Michigan and the rest of the Great Lakes region. Most Michigan travel indicators, however, held at or near the previous year's levels. Nationally, all trips were down 6 percent; nights away from home were down 9 percent. Vacation travel dipped 10.2 percent. Theme park attendance was down 5.6 percent nationwide, with major parks in Michigan's primary market area down nearly 6 percent.

Heightening the challenge to the travel industry was a staggering 41 percent increase in the level of unemployment for three states in Michigan's prime marketing area (Ohio, Illinois, and Indiana); they jumped from an 8.2 percent unemployment rate in the summer of 1981 to 11.6 percent in the summer of 1982. Michigan, meanwhile, experienced a 36 percent increase in the number of unemployed workers during the same time period.

Hotel and motel use tax collections in Michigan stood at $18.6 million for 1982--an increase of 2.7 percent from the previous year. (See Table 42.) State park camping was up 1.5 percent from the previous year, with 5,334,300 permits issued. Indicative of an economy-related trend toward more frequent, shorter trips by Michigan and out-of-state campers, was the fact that the greatest increase was recorded in the southern part of the lower peninsula (3.1 percent), while a slight decline (1.7 percent) was recorded in the upper peninsula.

At 2,296,000, Mackinac Bridge crossings were off slightly by 1.1 percent. Nevertheless, the 1982 summer bridge traffic virtually equaled the summer volume of 1981. Business at the Michigan Department of Transportation's Travel Information Centers continued to rise--up 1.4 percent in 1982, following a 9.9 percent increase in 1981 (after adjusting to allow for the partial closure of the centers for budgetary reasons). Visitors numbered 1,678,600 in 1982.

While business travel declined nationally, convention activity in Michigan cities continued to be strong. As an example, Detroit, Michigan's largest convention city, reported hosting the second largest number of delegates ever and the best advance sales in history.

All of this activity generated estimated direct expenditures of $5.3 to $5.7 billion and indirect expenditures estimated at $4.1 to $4.4 billion—for a total of $9.4 to $10.1 billion and the support of over

TABLE 42
Michigan Travel Indicators, 1979-1982
(Thousands)

	1979	1980	1981	1982	Percent Change 1980-81	Percent Change 1981-82
Hotel and Motel Sales and Use Tax	$16,883.5	$17,248.6	$18,088.9	$18,574.2[1]	4.9	2.7
Mackinac Bridge Crossings	2,298.4	2,260.1	2,320.5	2,296.0	2.7	-1.1
State Park Camping Attendance						
Region I (U.P.)	954.6	932.9	961.0	944.4	3.0	-1.7
Region II (Northern L.P.)	2,496.8	2,398.7	2,423.8	2,459.4	1.0	1.5
Region III (Southern L.P.)	1,946.5	1,854.9	1,871.8	1,930.5	0.9	3.1
Total	5,397.9	5,186.5	5,256.6	5,334.3	1.4	1.5
Travel Information Center Visitors[2]	1,392.4	1,506.1	1,655.3	1,678.6	9.9	1.4

[1]Month of December estimated.

[2]Adjusted for Travel Information Centers that were closed during some of 1982.

Source: Michigan Departments of Commerce, Natural Resources, Transportation, and Treasury.

240,000 workers in jobs that are directly or indirectly dependent upon the travel industry. State tax revenues generated by the industry totaled approximately $450 million—a 1.6 percent increase over the $442.8 million of 1982--bearing out the assertion that the travel industry continues, even in the worst of times, to be one of Michigan's major economic generators, and one that can help the state out of its economic depression.

The Michigan Travel Bureau initiated an International Tourism Promotion program to increase the number of foreign visitors to the state. To advertise Michigan as a vacation destination, the Travel Bureau participated in the Belgium Travel Fair in Brussels and the World Travel Market in London, meeting with nearly 100 travel agents, tour brokers, travel writers, and airline marketing officials. Working with the Metropolitan Detroit Convention and Visitors Bureau, the Bureau also participated in the World Tourism Show in Paris and the International Travel Fair in West Berlin to expand the French and German markets.

1983 Outlook

Michigan's relatively strong performance in the travel industry during 1982--in light of economic difficulties--bodes well for 1983 when an economic recovery is expected. Pent-up consumer demand and an increasing number of development projects signal a strong year for the travel industry in 1983.

Projects awaiting financial commitment this year total $115 million to $120 million. Combined with a $40 million Phase II of the Amway Grand Plaza in Grand Rapids, it is likely that travel investment in 1983 may match the record of 1976. In the seven years ending with 1983, total travel investment is expected to exceed $500 million.

To foster an anticipated travel boom as the economy recovers, the Travel Bureau will promote a number of aggressive, innovative programs. Internal improvements will include computerization of the travel information system, a significant redesign of the state's travel literature and a continued tie-in with the "Say Yes to Michigan" campaign.

International publicity will be drawn to Michigan by virtue of several special projects. The Grand Prix auto race held in 1982 in downtown Detroit is again scheduled for 1983 and 1984. Scheduled for a 1984 opening, Flint's Auto World (a $63 million development) will be the midwest's newest theme park and the first of its kind in the nation. Detroit's Montreux International Jazz Festival has become an important annual worldwide event--and an international hot air balloon competition scheduled for Battle Creek in 1985 will attract more tourists to Michigan.

During difficult economic times, the fact that Michigan did not experience the substantial national declines in travel activity is a positive sign in an increasingly competitive industry.

INTERNATIONAL TRADE

1982 Developments

International trade remained depressed in 1982 as the overall level of exports declined and imports increased. U.S. exports declined in recent years, in part, due to the general worldwide recession. In addition, the strength of the U.S. dollar increased the price of U.S. goods and reduced U.S. price competitiveness. As the dollar strengthened and domestic costs increased, U.S. goods became more expensive to foreign buyers. As a result, the U.S. current account balance, the broadest measure of U.S. international trade and financial transactions, declined from $1.1 billion in the first quarter of 1982 to a negative $4.2 billion in the third quarter.

A second indicator of international activity, the U.S. merchandise balance (i.e., exports minus imports), also weakened from a deficit of $5.9 billion in the first quarter to $12.4 million in the third quarter of 1982; a negative U.S. merchandise balance indicates that U.S. exports have fallen below U.S. imports. U.S. exports dropped from $55.8 billion in the first quarter of 1982 to $52.5 billion in the third quarter of 1982. While imports decreased from $61.7 billion in the first quarter of 1982 to $60.9 billion in the second quarter, they increased beyond the first quarter level to $64.9 billion in the third quarter. Overall, the 1982 level of imports and exports is lower than in 1981, reflecting a weaker economy both domestically and in foreign countries.

The debate over protectionist international trade policies continued in 1982 as the worldwide recession increased pressures on governments to shield their own industries from foreign competition, and preserve domestic jobs. At the same time, developing countries attempted to promote exports and constrain imports in order to pay for their trading debt.

In the U.S., farmers urged the government to launch an export promotion campaign since a major portion of their crops are shipped abroad. For example, large portions of farm commodities are shipped from Michigan to foreign countries, including: one-third of the corn crop, two-thirds of the edible bean harvest, over one-half of soybean commodities, and two-thirds of wheat products.

In contrast, unemployed auto workers advocated import protection to preserve jobs. In addition to recommending the continuation of the voluntary curb of Japanese auto exports, they proposed a domestic content bill which would force foreign auto makers to assemble more autos in the U.S. Free trade advocates, however, argued that the move toward greater protectionism would encourage retaliation by foreign countries who would reduce purchases of American exports.

Enactment of such protectionist bills could adversely affect export-related jobs. In the U.S. manufacturing industry, export-related employment comprised 13.7 percent of total employment in 1980. Michigan's manufacturing employment is somewhat more dependent on exports as the ratio of export manufacturing to total manufacturing employment was 15.5 percent in 1980, 1.8 percentage points higher than the national level.

As indicated in Table 43, the value of goods manufactured in Michigan and exported abroad grew from $6.9 billion in 1977 to $8.8 billion in 1980, according to the most recent survey by the U.S. Department of Commerce, an increase of 27.5 percent. During the same period, U.S. manufacturing exports grew by 80.8 percent. As Michigan's growth rate fell beneath the national pace, the state's percentage of total U.S. exports declined from 8 percent in 1977 to 5.7 percent in 1980. The slower growth rate also resulted in a significant drop in Michigan's ranking among states to the sixth largest exporter of manufactured goods. The last census taken in 1977 reported Michigan in the number two spot, second only to California.

TABLE 43
U.S. and Michigan Manufactured Goods Export Statistics, 1972-1980
(Billions)

	1972	1977	1980
Manufactured Goods Exports			
U.S.	$36.6	$ 85.8	$155.1
Michigan	$ 3.5	$ 6.9	$ 8.8
Ratio Michigan to U.S.	9.6	8.0	5.7
Michigan Rank Among States	1	2	6
Direct Export Employment as Percent of Total Manufacturing Employment			
U.S.	4.1	5.6	7.3
Michigan	5.4	6.1	7.4

Source: 1972 data from *Current Industrial Reports: Survey of Origin of Exports by Manufacturing Establishment*, U.S. Department of Commerce, Bureau of the Census. 1977 and 1980 data from *Annual Survey of Manufacturers, 1980: Origin of Exports of Manufacturing Establishments*, U.S. Department of Commerce, Bureau of Census, January, 1982.

Although Michigan's growth rate for the value of manufacturing exports has fallen behind the national pace, Michigan's export employment continued to rise. For example, in 1980 the number of employees involved in the direct manufacturing of exports reached 75,900 or 7.4

percent of total Michigan manufacturing employment, up from 6.1 percent in 1977. (See Table 43.) In addition, another 82,500 workers are engaged in jobs supporting export manufacturing. The total of direct and supporting export manufacturing jobs reached 15.5 percent of Michigan's total manufacturing jobs in 1980, up 3.6 percentage points from 1977. Thus, for every 10 manufacturing jobs approximately 1.5 jobs are dependent on exports.

An even broader measure of the level of Michigan export employment is illustrated by the ratio of total export employment to Michigan civilian employment. From 1977 to 1980, this ratio rose 1.3 percentage points to 6.6 percent. Thus, despite declines in the overall level of employment since the peak levels recorded in 1979, the growth of Michigan exports has assisted in stabilizing Michigan jobs against even greater losses.

A review of export-related manufacturing employment by industry reveals that the transportation equipment sector is the largest, with a 25.4 percent share of total Michigan manufacturing export employment in 1980. Other large export sectors in Michigan include metal products, nonelectrical machinery, and administrative. Although the transportation equipment sector utilizes the largest number of export workers, other smaller industries have a higher share of their market devoted to exports. These industries include: apparel and textile products, metal products, nonelectrical machinery, chemicals, instruments, administrative, and miscellaneous manufacturing. Thus, several Michigan industries are dependent on exporting goods to countries such as Canada and Japan.

TABLE 44
Trade Under the U.S. Automotive Agreement With Canada, 1981 and 1982
(Billions)

	1981			1982[1]		
	U.S. Exports	U.S. Imports	Balance	U.S. Exports	U.S. Imports	Balance
Cars	$ 3.1	$ 4.3	$-1.2	$ 2.4	$ 5.8	$-3.4
Trucks	1.1	2.6	-1.5	0.7	3.2	-2.5
Parts	7.7	3.5	4.2	8.1	3.9	4.2
Tires & Tubes	0.1	0.2	-0.1	0.1	0.3	-0.2
Total	$12.0	$10.6	$ 1.4	$11.3	$13.2	$-1.9

[1]Estimates.

Source: U.S. Department of Commerce.

Canada is one of Michigan's major trading partners of autos, trucks, parts, and tires. To create a broader market for automotive products, the U.S. enacted the Automotive Products Trade Act of 1965, removing U.S. duties and trade restrictions on certain new and used Canadian motor vehicles and parts. Although Michigan is one of the key states trading automobile parts to Canada, statistics reflecting this activity are only available at the U.S. level. The U.S. auto trade balance has declined from $1.8 billion in 1980 to $1.4 billion in 1981, due to large price increases in Canadian-made motor vehicles compared to those exported from the U.S.

This declining trend continued in 1982. As Table 44 illustrates, the U.S. auto balance of trade plummeted to an estimated deficit of $1.9 billion. A comparison of U.S. imports of Canadian automobile products from 1981 to 1982 indicates that cars increased from $4.3 billion to $5.8 billion, and trucks increased from $2.6 billion to $3.2 billion. Likewise, the drop in U.S. exports of cars and trucks from 1981 to 1982 contributed to the trade balance deficit. During that period, U.S. car exports fell from $3.1 billion to $2.4 billion and U.S. truck exports fell from $1.1 billion to $0.7 billion due to a 30 percent decline in the number of motor vehicles exported to Canada. (See Table 24.) While the motor vehicle balance of trade worsened, the U.S. maintained virtually the same positive balance of trade for parts, Michigan's major auto-related export. Parts totaled $4.2 billion in both 1981 and 1982.

Despite the recession, total U.S. trade (the sum of exports and imports) under the automotive agreement increased from $19.4 billion in 1980 to $22.6 billion in 1981, and then increased again to $24.5 billion in 1982; however, these increases may be primarily attributed to higher prices rather than volume increases. Hence, auto trade activity with Canada remained flat in 1982.

Michigan agricultural exports achieved another record with shipments totaling $943.6 million in fiscal 1981, up $256.3 million over the previous year. (See Table 45.) Consequently, Michigan's ranking among all states in exports of agricultural products rose to number fifteen in fiscal 1981, up from the 20th place in fiscal 1980. For certain commodity groups, Michigan ranked higher. For example, Michigan's exports of vegetables and dry edible beans ranked third in the nation following California and Washington. In addition, Michigan ranked sixth in exports of dairy products, seventh in fruit and fruit preparations, and ninth in feed grains and products. Thus, Michigan agricultural exports are a bright spot in the state's international trade.

1983 Outlook

Although the recent decline of the U.S. dollar will restore some price competitiveness to U.S. goods, the dollar is not expected to decline significantly compared with the major trading currencies and may even appreciate on a trade-weighted basis. In addition, the U.S. is

TABLE 45
Michigan Agricultural Exports, Fiscal Years 1980 and 1981
(Millions)

Commodity Group	FY 1980	FY 1981	Percent of Total
Feed Grains	$285.7	$406.5	43.1
Vegetables & Dry Edible Beans	83.4	154.5	16.4
Soybeans	114.7	136.4	14.4
Wheat	95.2	121.4	12.8
Fruit	24.2	34.0	3.6
Hides and Skins	21.9	18.5	2.0
Animals and Meats (Excl. Poultry)	13.3	15.8	1.7
Dairy Products	10.8	14.2	1.5
Fats, Oils, and Greases	8.6	7.1	0.8
Poultry Products	2.9	5.4	0.6
Other	26.6	29.8	3.1
Total	$687.3	$943.6	100.0

Source: *Foreign Agricultural Trade of the United States*, U.S. Department of Agriculture, Economic Research Service, March/April, 1982.

expected to experience faster economic growth when compared with countries buying our products and, thus, the trade deficit is expected to increase as exports remain flat and imports improve. The value of imports is not expected to be inflated by significant oil price increases in the next few years as energy conservation and fuel substitution will hold down demand pressure and increased production from countries other than OPEC will add to the world supply.

The growing tendency toward protectionism may affect our agricultural exports, particularly to Japan and the European community. In addition to restrictive trade policies such as import quotas and export subsidies, U.S. farmers have been forced to compete against stiff foreign regulations and government subsidies. Despite these obstacles, the long-term prospects appear to be good. Economic development overseas is creating a demand for more foods. Our farmers, the most efficient producers in the world, are in the best position to supply this demand.

APPENDIX A
INTERGOVERNMENTAL ISSUES

INTERGOVERNMENTAL ISSUES

1982 Developments

With the continuing fiscal problems in Michigan affecting the revenues of government at both the state and local level, state financial assistance to its general-purpose local units of government increased by only 3.6 percent from fiscal 1981 to fiscal 1982. This was lower year-to-year growth than was experienced during any time in the prior ten-year period.

While overall growth was 3.6 percent, township revenues from the state remained static between fiscal 1981 and fiscal 1982 and city and village state assistance in the aggregate actually declined by about 1.4 percent. The latter resulted primarily from executive order reductions in state revenue sharing distributions of the income and single business taxes. These cuts, which were part of statewide expenditure reductions of $778 million required to balance the state budget, did not affect townships to the same extent since these units normally receive at least 80 percent of their state-shared revenues from the sales tax which declined slightly from the prior year. The sales tax is also constitutionally earmarked and, therefore, protected from executive order reductions. On the other hand, cities and villages, as a group, experienced a reduction of almost five percent in revenue sharing funds since they receive only about 45 percent of their unrestricted state shared revenues from the sales tax.

Counties also received less state-shared income tax revenues in fiscal year 1982 than in fiscal 1981 but did experience growth in programmatic revenues primarily for human services activities. When fiscal 1981 totals are adjusted by the addition of several programs omitted in earlier tabulations, direct and indirect assistance to county governments increased about 9.6 percent in fiscal 1982 over the prior year. Indirect aid which is included under Item III of Table A-1 results from the state assumption of such local programs as county probation staff and the initial phase of court reorganization. It also includes an amount equivalent to county costs for the final phase-in year of the state assumption of general assistance. A major portion of the growth in direct financial assistance to counties results from the emphasis the state has placed on having the care and support of mental health clients provided by local communities instead of the state.

1983 Outlook

Table A-1 shows that local units could anticipate growth in state financial assistance in fiscal 1983 of almost 12 percent; however, the

TABLE A-1
State Financial Assistance to Local Units of Government
(Thousands)

Source of Revenue	Estimated Expenditures 1981-82				Appropriations and Estimated Distribution 1982-83			
	Cities & Villages	Town-ships	Counties	Total	Cities & Villages	Town-ships	Counties	Total
I. Unrestricted State Shared Rev.								
A. Sales Tax	$ 144,860	$ 92,620	$ --	$ 237,480	$ 146,034	$ 93,366	$ --	$ 239,400
B. Income Tax[1]	80,760	7,020	44,560	132,340	113,740	9,890	68,600	192,230
Census Delay[1]	--	--	--	--	709	2,361	--	3,070
C. Intangibles Tax	1,464	936	--	2,400	5,795	3,705	--	9,500
D. SBT[1]	45,345	3,943	--	49,288	55,220	4,800	--	60,020
Total	$ 272,429	$ 104,519	$ 44,560	$ 421,508	$ 321,498	$ 114,122	$ 68,600	$ 504,220
II. Restricted State Revenue								
A. MI Transportation Fund	$ 116,600	$ --	$ 210,100	$ 326,700	$ 127,900	$ --	$ 230,500	$ 358,400
B. Other	5,318	1,215	406	6,939	5,562	1,256	422	7,240
Total	$ 121,918	$ 1,215	$ 210,506	$ 333,639	$ 133,462	$ 1,256	$ 230,922	$ 365,640
III. Programmatic Grants								
A. Mental Health	$ --	$ --	$ 401,118	$ 401,118	$ --	$ --	$ 474,470	$ 474,470
B. Public Health	12,229	--	25,205	37,434	13,311	--	29,276	42,587
C. Social Services	--	--	63,239	63,239	--	--	56,023	56,023
D. Other	46,840	988	43,948	145,545[2]	49,069	971	44,084	141,736[2]
Total	$ 59,069	$ 988	$ 533,511	$ 647,336[2]	$ 62,380	$ 971	$ 603,853	$ 714,816[2]
IV. Reimbursement for Property Exempt from Taxes								
A. Single Business Tax Inventory Reimbursement	$ 69,400	$ 4,510	$ 29,799	$ 103,709	$ 68,417	$ 4,871	$ 29,266	$ 102,554
B. Other	1,119	3,181	6,020	10,320	1,321	3,307	6,394	11,022
Total	$ 70,519	$ 7,691	$ 35,819	$ 114,029	$ 69,738	$ 8,178	$ 35,660	$ 113,576
V. Other Reimbursement	$ 3,850	$ 150	$ --	$ 4,000	$ 4,046	$ 159	$ --	$ 4,205
Grand Total	$ 527,785	$ 114,563	$ 824,395	$1,520,512[2]	$ 591,124	$ 124,686	$ 939,038	$1,702,457[2]

[1] As adjusted by Executive Orders 1981-9, 1982-6, 1982-13.

[2] Does not add across. Allocation to local units cannot be estimated for Aging and Mass Transportation grants.

Source: Michigan Department of Management and Budget.

table does not reflect the possible effects of an executive order for the current year which, in conjunction with new tax revenues, has been proposed by the Governor to eliminate the projected deficit for the year and to begin to solve the state's serious long-term cash problems. The executive order, if adopted as originally proposed, would reduce state-shared revenues by $15 million and make reductions in a few other local programs bringing the projected growth from fiscal 1982 down to about 10 percent. Even with these reductions, local units in the aggregate should receive significantly more unrestricted state-shared revenues during the current year than were distributed in fiscal 1982.

For the first time, this report precedes the submission of the *Executive Budget* since the Legislature extended the time for budget preparation for the new administration. It is, therefore, necessary to restrict information in Table A-1 to the most recent completed fiscal year 1981-82, and to the current fiscal year, 1982-83. The outlook at this time is for a constrained 1983-84 budget and this will be reflected in the programs providing for state financial assistance to local governments. These units should experience moderate growth in their state revenue sharing payments.

In addition, revenues for local government will be enhanced by the passage of the transportation package in 1982. Increases in the motor fuel and weight taxes will increase the revenue available for highway and mass transportation purposes. Road funds for county road commissions and for cities and villages had fallen from a high of $379.9 million in fiscal 1979 to $326.7 million in fiscal 1982. With part-year collections, these revenues should increase by about 9.7 percent in fiscal 1983 and, with full year increased collections, are projected to grow by about 20 percent between fiscal 1983 and fiscal 1984.

APPENDIX B
SELECTED 1982 PUBLIC ACTS OF ECONOMIC SIGNIFICANCE

SELECTED PUBLIC ACTS OF 1982

Banking and Finance

Bank Exam Fees (P.A. 348)
Revises fees for bank examinations. Effective December 21, 1982.

Credit Union Exam Fees (P.A. 349)
Revises fees for examinations of credit unions. Effective December 21, 1982.

Insurance Loans (P.A. 427)
Establishes a variable interest rate up to 18 percent on life insurance policy loans, instead of an 8 percent maximum. Effective December 29, 1982.

Loan Interest (P.A. 319-322)
Extend to December 1, 1983 higher interest rate ceilings on car loans and land contracts and first mortgages. Effective December 2, 1982 (P.A. 319 and 320) and December 3, 1982 (P.A. 321 and 322).

Safety Deposit Access (P.A. 378)
Permits a deceased's personal representative or other joint owners of a safety deposit box to have immediate access to the box after the decedent's death. Effective March 29, 1983.

Second Mortgages (P.A. 361)
Permits consumer loan companies to offer second mortgages at a maximum of 18 percent interest through 1983. Effective December 23, 1982.

Consumer Protection

Drug Treatment (CP.A. 232 and 233)
Require BlueCross/Blue Shield to provide benefits for intermediate and outpatient substance abuse treatment for all clients, with minimum coverage of $1,656. Effective October 1, 1982.

Life Insurance (P.A. 184)
Applies same language to husband's interest in wife's life insurance policy as now regulates wife's interest in husband's policy under divorce law. Effective June 17, 1982.

Medicare Supplemental Insurance (P.A. 195)
Regulates and prescribes the content of Medicare supplemental insurance policies. Effective June 30, 1982.

Mobile Home Conversion Notification (P.A. 42)
Requires developers changing a mobile home park to condominiums to notify each tenant of the proposed conversion. Permits tenants to remain for one year or until termination of the lease, whichever is later. Effective March 16, 1982.

Public Utility Proposal (P.A. 212)
Places on the November, 1982 ballot a proposal to abolish the automatic fuel adjustment clause for public utilities. Prohibits rate increases based upon changes in cost of fuel or purchased gas unless there is notice and public hearings. Effective date to be determined by Supreme Court.

Public Utility Cost Recovery (P.A. 304)
Prohibits automatic utility rate hikes to recover fuel costs. Provides for annual hearings on long-range plans for purchase and generation of energy. Effective October 13, 1982.

Sanitary Food Sales (P.A. 43)
Prohibits filthy or unsanitary conditions to exist in any establishment in which food for human consumption is manufactured, stored, or sold. Effective March 30, 1983.

Economic Development

Beverage Containers (P.A. 39)
Permits merchants to refuse to redeem empty returnable beverage containers which contain anything other than residue of the original beverage. Permits merchants to refuse to redeem more than $25 worth of containers at one time. Bans double redemption. Effective March 16, 1982.

Bottle Deposits (P.A. 266)
Prohibits a manufacturer of beer from requiring a licensed distributor to pay a deposit on a nonrefillable container. Permits the two to enter into agreements on where deposit originates. Effective October 5, 1982.

Business Permits (P.A. 141)
Establishes an office of business permits in Department of Commerce to provide businesses, at no cost, with comprehensive information on state permits required for ventures within the state. Requires development of a "master application" form. Effective April 27, 1982.

Corporate Takeovers (P.A. 238)

Prohibits a corporation from acquiring stock in another with intent of diminishing competition. Permits attorney general to seek injunction to prevent takeover. Effective September 23, 1982.

Economic Development Authority (P.A. 70)

Creates Economic Development Authority and Economic Development Fund financed by revenue bonds and oil and gas royalties. Provides for loans and lease insurance to private businesses, loans to municipalities and grants to research and development enterprises. Effective May 5, 1982.

Family Farm Authority (P.A. 220)

Creates family farm authority to make loans for purchase of land or equipment or to make improvements to agricultural property to eligible young farmers. Provides for tax-free notes and bonds to be issued by authority. Effective July 10, 1982.

Nonprofit Corporations (P.A. 162)

Modernizes and simplifies laws dealing with nonprofit corporations. Effective January 1, 1983.

Pension Investment (P.A. 55)

Permits state pension funds to invest up to 5 percent of their assets in new or expanding businesses. Permits funds to be pooled with other systems or institutions for investment purposes. Effective April 6, 1982.

South Africa (P.A. 512)

Prohibits state educational institutions from investing in firms operating in South Africa, after April 1, 1984. Effective March 29, 1983.

Workers Compensation (P.A. 7 and 8)

Deregulates workers compensation insurance ratemaking process, sets procedures for companies which cannot get insurance in the marketplace to purchase policies at fair and equitable rates. Provides for monitoring of market and allows state to take action to require competition. Effective January 1, 1983.

Workers Compensation (P.A. 32)

Eliminates age-65 reduction in workers compensation benefits and provides for other changes. Effective March 10, 1982.

Employment

Jury Duty (P.A. 234)

Protects citizens summoned for jury duty from discipline by an employer. Prohibits employer from requiring jurors to work any

number of hours in a day which if added to the number of hours spent on duty, would exceed the normal daily work hours. Effective March 30, 1983.

Polygraph Protection (P.A. 44, 45, and 46)
Prohibits an employer from requiring as a condition of employment or change in employment status that an applicant or employee take a polygraph test. Prohibits denial of employment on the basis of refusal to take such a test. Effective March 17, 1982.

Wage Information (P.A. 524)
Prohibits an employer from preventing employees from disclosing wage and salary information. Effective March 29, 1983.

Whistleblower Act (P.A. 146)
Extends from 90 days to one year the time a person has to file a suit against an employer who violates the Whistleblower Act by punishing the employee for reporting a law violation allegedly committed by the employer. Effective March 30, 1983.

Local Government

Community Colleges (P.A. 368)
Authorizes community colleges to levy and collect community college taxes either in conjunction with the township taxes or in conjunction with a summer tax collection of local or intermediate school district taxes by a city or township. Effective December 28, 1982.

Conflict of Interest (P.A. 207)
Permits members of a local public body to vote on a contract when the members have a personal interest whose monetary value is less than $250, if a quorum can not otherwise be reached. Effective July 1, 1982.

Highland Park Income Tax (P.A. 124)
Permits Highland Park to seek voter approval of a doubling of the city income tax rates. Effective April 19, 1982.

Liquor License Quotas (P.A. 190)
Provides that the number of licenses a city may issue shall not be reduced as a result of the 1980 census. Effective June 21, 1982.

Local Investment (P.A. 217)
Gives local governments added flexibility in investing funds by permitting surplus funds to be used for U.S. government repurchase agreements, mutual funds, and bankers acceptances. Effective July 8, 1982.

Park Tax (P.A. 164)

Permits a county to fund the purchase, improvement, or maintenance of property for a park, zoo, or airport. Effective May 25, 1982.

Property Tax Vote (P.A. 225)

Extends deadline for voter approval of property taxes to be collected the same year from September 15 to December 10 for school districts and November 2 for townships. Effective September 15, 1982.

Race Tracks (P.A. 241)

Exempts horse-race tracks in Saginaw and Jackson from property taxes levied between December 31, 1981 and January 1, 1984. Effective September 23, 1982.

Regional Planning Commissions (P.A. 156)

Permits regional planning commissions to provide and charge for services to participating local governments, the state, and other public and private bodies. Effective May 18, 1982.

SEMTA Tax (P.A. 56)

Provides that if combined revenue from state and taxes of Southeastern Michigan Transportation Authority exceeds the 10 percent limit for funds devoted to nonroad transportation in the state, the excess is to be held in escrow for distribution in later years. Extends SEMTA taxing power to December 23, 1982. Effective April 6, 1982.

Summer School Taxes (P.A. 333)

Allows school districts to act as their own tax collection agents if the city, township, or county the district is located in refuses to collect summer taxes. Effective December 16, 1982.

Surplus Funds (P.A. 367)

Allows local governments to pool their surplus funds for investment purposes. Effective March 29, 1983.

Tax Payments (P.A. 13)

Permits property owners to make partial payments on taxes if local unit so authorizes and provides that the portion of taxes which must be paid cannot include any state tax credits. Effective February 25, 1982.

Natural Resources

Coal Mining (P.A. 303)

Regulates surface coal mining in Michigan. Establishes abandoned mine reclamation fund and requires reclamation plan. Provides for designation of lands unsuitable for mining. Effective October 12, 1982.

Great Lakes Oil Drilling (P.A. 67, 68, and 69)
Prohibit leasing of Great Lakes bottomlands for oil and gas exploration or drilling. Effective April 14, 1982.

Hazardous Wastes (P.A. 307)
Provides for setting priorities of hazardous waste areas for cleanup. Requires governor to make annual budget recommendations on cleanup. Creates environmental response fund. Effective January 1, 1983.

Heritage Trust Fund (P.A. 326-328)
Restructures the use of state oil, gas, and mineral revenues for the public use of recreational lands and the financing of economic development programs. Effective December 13, 1982.

Taxation

Airport Property Tax Exemption (P.A. 347)
Clarifies property tax exemptions for private airports. Effective March 29, 1983.

Auto Trade-in (P.A. 218 and 219)
Permit dealers to calculate the state sales or use taxes on the motor vehicle price after deducting the value of the trade-in vehicle. Effective January 1, 1984.

Bad Debts (P.A. 23)
Permits a business to claim a credit for sales tax paid on accounts later written off as bad debts. Effective January 1, 1984.

Cash Accounting (P.A. 389)
Provides for recording on a cash basis the social services expenditures for Medicaid and general assistance medical programs. Effective December 28, 1982.

Cash Flow Account (P.A. 153)
Creates working capital reserve account in general fund to reduce cash flow deficit. Dedicates revenues from 10¢ per pack cigarette tax hike to account. Effective May 17, 1982.

Children's Trust Fund (P.A. 211)
Permits taxpayers to contribute $2 of their income tax refunds to the Children's Trust Fund to finance child abuse prevention. Effective July 2, 1982.

Christmas Trees (P.A. 159)
Adds Christmas trees to definition of agricultural use in Farmland and Open Space Preservation Act. Effective May 20, 1982.

Cigarette Tax (P.A. 73)

Increases cigarette tax from 11¢ per pack to 21¢ per pack as of May 1, 1982. Provides for deposit of revenue in working capital reserve account. Effective May 1, 1982.

Damaged Beer (P.A. 127)

Requires Liquor Control Commission to refund or give tax credit for taxes paid on beer or wine lost, made unmarketable, or condemned by the agency due to fire, flood, casualty, or other accident. Effective April 20, 1982.

Delinquent Tax Credit (P.A. 480)

Eliminates income tax credit for delinquent property taxes. Effective March 29, 1983.

Diesel Fuel (P.A. 441)

Repeals the sunset provision on six-cent diesel fuel rebate given to truckers who purchase special state permits. Effective December 29, 1982.

Estate Taxes (P.A. 500)

Provides that general direction in a will to pay all taxes not be construed to include certain taxes. Effective March 29, 1983.

Executive Budget (P.A. 423)

Extends to 100 days from 10 the dealine for submission of governor's budget recommendations to Legislature after it convenes, for 1983. Effective December 28, 1982.

Gasohol (P.A. 435)

Delays for two years the phase out of the special tax rate on gasohol. Effective December 29, 1982.

Gasoline Tax (P.A. 437)

Provides for increasing gasoline tax in next two years based on federal highway maintenance formula, by a maximum of two cents per gallon a year. Effective January 1, 1983.

Gleaned Crops Credit (P.A. 208)

Provides farm owner a credit of 10 percent of the wholesale market value of gleaned crops if crops are gleaned by charitable organization. Effective July 2, 1982.

Income Tax Code (P.A. 387)

Adopts the Internal Revenue Code in effect on November 15, 1982. Effective December 28, 1982.

Income Tax Increase (P.A. 155)

Increases individual income tax from 4.6 percent to 5.6 percent for

six months beginning April 1, 1982 to September 30, 1982. Effective May 17, 1982.

Income Tax Withholding (P.A. 169)

Requires timely filing of income tax withholding payments. Requires employers to provide the Treasury Department with copies of exemption certificates of employees who claim more than nine exemptions. Effective June 1, 1982.

Inheritance Tax (P.A. 351)

Exempts transfer between spouses from the inheritance tax. Effective December 21, 1982.

Jobless Tax Credit (P.A. 393)

Provides new Michigan employers a refundable credit against the single business tax for unemployment taxes. Effective December 28, 1982.

Liquor Specific Taxes (P.A. 462-464)

Extends liquor excise and specific taxes to distilled spirits with an alcoholic content of less than 22 percent. Effective April 24, 1983.

Marriage Tax (P.A. 240)

Disallows differential treatment of two-wage earner families in income tax law as is provided in federal Internal Revenue Code. Effective September 23, 1982.

Mobile Home Tax (P.A. 478)

Allows collection of use tax on mobile homes. Effective December 30, 1982.

Motor Vehicle Fees (P.A. 439)

Revises vehicle registration fee for cars and trucks to raise weight taxes by 15 percent on passenger vehicles and 30 percent on commercial vehicles, plus annual increases based on increase in Michigan personal income. Sets new fee for new cars sold after October 1, 1983 based on vehicle value. Effective January 1, 1983.

Property Tax Credit (P.A. 269)

Phases out property tax credits under the income tax for households with income in excess of $65,000. Extends to 1982 and 1983 tax years the credit reduction for welfare families. Provides special credits to senior citizens whose rents exceed 50 percent of income. Effective October 5, 1982.

Revenue Sharing (P.A. 317)

Provides for continuing level of revenue sharing based on authorized

millage rate when truth-in-taxation law results in rollback of millage. Effective October 18, 1982.

Single Business Tax (P.A. 216)
Increases the single business tax credit for companies with gross receipts less than $5 million (up from $3 million) from 50 percent to 90 percent. Increases amount a shareholder, officer, or owner may take out of the firm. Effective January 1, 1984 for most provisions; some effective July 8, 1982.

Single Business Tax (P.A. 406 and 414)
Require domestic life insurers to add interest paid or credited to policyholders to business tax base beginning in 1983. Limit the excess compensation deduction under the SBT for domestic life insurers. Effective December 28, 1982.

Single Business Tax Code (P.A. 388)
Adopts the Internal Revenue Code in effect on November 15, 1982. Effective December 28, 1982.

Tax Refund Interest (P.A. 57)
Increases from 6 percent to 12 percent the interest rate paid by local governments to taxpayers when ordered by the Tax Tribunal for unlawful assessments. Effective April 6, 1982.

Truth-in-Taxation (P.A. 5)
Prohibits tax increases caused by assessment increases without public hearings and a vote of the local governing body. Effective February 9, 1982.

Unemployment System (P.A. 535)
Restructures unemployment compensation system. Raises employer taxes and curbs benefits to idled workers. Provides for repayment of debt to federal system. Effective January 2, 1983.

Transportation

Motor Carriers (P.A. 399)
Recodifies Motor Carrier Act. Effective December 28, 1982.

Tankers (P.A. 206)
Sets new requirements for trucks doing bulk hauling of flammable liquids. Extends date for use of double-bottom tankers until November 1, 1985. Effective July 1, 1982.

Transportation Fund (P.A. 438)
Revises distribution of money from Transportation Fund. Effective January 1, 1983.

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TABLE C-1
Michigan Labor Force and Employment Estimates, 1973-1982
(Thousands)

Year	Total Labor Force	Employed[1]	Unemployed[2]	Percent Unemployed	Wage and Salary Workers	Workers Involved in Labor-Management Disputes
1973	3,805	3,581	223	5.9	3,284.3	4.9
1974	3,881	3,593	288	7.4	3,277.7	9.9
1975	3,895	3,408	486	12.5	3,136.6	3.5
1976	3,994	3,621	373	9.4	3,283.1	6.4
1977	4,117	3,780	336	8.2	3,442.5	6.9
1978	4,198	3,909	289	6.9	3,609.4	5.4
1979	4,313	3,978	335	7.8	3,637.0	5.2
1980	4,290	3,756	534	12.4	3,442.8	6.0
1981	4,301	3,773	528	12.3	3,377.7	3.0
1982	4,296	3,632	664	15.5	3,214.2	3.7
1981: January	4,209	3,627	582	13.8	3,362.8	2.1
February	4,193	3,593	600	14.3	3,351.9	2.3
March	4,208	3,653	553	13.1	3,375.2	3.0
April	4,274	3,753	521	12.2	3,389.4	3.5
May	4,335	3,842	493	11.4	3,419.7	2.6
June	4,402	3,915	487	11.1	3,416.4	4.0
July	4,402	3,875	527	12.0	3,366.2	3.8
August	4,382	3,899	483	11.0	3,331.8	3.6
September	4,296	3,836	460	10.7	3,411.1	4.1
October	4,344	3,840	504	11.6	3,404.1	2.3
November	4,315	3,798	517	12.0	3,381.3	2.5
December	4,261	3,647	614	14.4	3,322.0	2.3
1982: January	4,227	3,550	677	16.0	3,214.6	2.2
February	4,240	3,556	684	16.1	3,217.7	2.3
March	4,251	3,527	725	17.0	3,223.8	1.0
April	4,218	3,564	654	15.5	3,206.2	0.8
May	4,323	3,707	616	14.3	3,245.0	1.2
June	4,338	3,718	620	14.3	3,230.7	12.5
July	4,406	3,757	648	14.7	3,197.0	1.5
August	4,379	3,742	637	14.5	3,187.7	2.9
September	4,306	3,682	624	14.5	3,222.4	17.2
October	4,279	3,642	637	14.9	3,215.2	1.6
November	4,262	3,563	699	16.4	3,208.1	0.9
December	4,327	3,580	747	17.3	3,202.3	0.3

[1]Includes agricultural and nonagricultural employment. Excludes those involved in labor-management disputes.

[2]Excludes workers not active in the labor market and workers directly involved in labor-management disputes.

Source: Michigan Employment Security Commission.

TABLE C-2
Michigan Labor Force, Employment and Unemployment, Quarterly Averages, 1973-1982
(Thousands)

Year/ Quarter	Labor Force	Employment	Unem-ployment	Percent Unemployed
1973: I	3,737	3,467	270	7.2
II	3,786	3,579	207	5.5
III	3,839	3,636	203	5.3
IV	3,861	3,657	204	5.3
1974: I	3,864	3,587	277	7.2
II	3,848	3,579	268	7.0
III	3,915	3,632	283	7.2
IV	3,899	3,575	324	8.3
1975: I	3,916	3,352	564	14.4
II	3,880	3,359	520	13.4
III	3,892	3,426	466	12.0
IV	3,892	3,495	398	10.2
1976: I	3,927	3,513	414	10.5
II	3,974	3,587	387	9.7
III	4,047	3,679	367	9.1
IV	4,026	3,701	326	8.1
1977: I	4,070	3,685	385	9.5
II	4,092	3,777	315	7.7
III	4,145	3,792	353	8.5
IV	4,166	3,872	295	7.1
1978: I	4,157	3,845	312	7.5
II	4,192	3,910	282	6.7
III	4,212	3,916	296	7.0
IV	4,234	3,968	266	6.3
1979: I	4,270	3,926	344	8.1
II	4,311	3,980	330	7.7
III	4,338	4,014	324	7.5
IV	4,334	3,992	342	7.9
1980: I	4,252	3,789	463	10.9
II	4,305	3,721	584	13.5
III	4,326	3,766	560	12.9
IV	4,279	3,751	528	12.3
1981: I	4,203	3,624	578	13.8
II	4,337	3,837	500	11.5
III	4,360	3,870	490	11.2
IV	4,307	3,762	545	12.7
1982: I	4,239	3,544	695	16.4
II	4,293	3,663	630	14.7
III	4,364	3,727	636	14.6
IV	4,289	3,595	694	16.2

Source: Michigan Employment Security Commission.

TABLE C-3
Michigan Manufacturing and Durable Goods Employment, 1973-1982
(Thousands)

Year	Manufacturing	Durable Goods	Lumber and Wood Products	Furniture and Fixtures	Primary Metal Products	Fabricated Metal Products	Non-electrical Machinery	Electrical Machinery	Motor Vehicles and Equipment	Other Transportation Equipment	Other Durable Goods
1973	1,178.8	953.1	16.1	22.5	95.6	156.9	155.6	47.1	401.0	15.0	43.3
1974	1,114.0	897.2	15.5	21.9	93.9	141.6	158.1	45.4	366.1	11.5	43.2
1975	983.7	778.2	12.8	18.6	79.5	120.4	136.6	38.2	321.2	11.6	39.3
1976	1,061.7	845.9	14.1	19.6	86.2	137.3	138.0	39.6	357.7	12.8	40.1
1977	1,128.4	905.9	14.4	20.0	91.6	145.7	150.6	40.9	386.5	13.6	42.6
1978	1,179.6	952.8	14.4	21.5	91.7	155.5	159.8	42.7	409.6	14.1	43.5
1979	1,160.1	935.1	14.1	23.0	88.0	150.8	167.2	41.9	392.7	12.9	44.5
1980	998.9	795.0	11.6	23.0	67.3	118.0	158.4	34.9	326.3	13.9	41.6
1981	977.7	780.5	10.7	22.7	64.5	114.1	157.1	32.8	324.2	15.4	39.0
1982	874.9	688.4	9.7	21.8	49.4	99.0	133.8	29.4	295.4	15.7	34.2
1981: January	987.4	790.3	11.1	22.6	67.7	115.9	157.0	33.4	328.5	14.6	39.4
February	978.7	782.4	10.8	22.8	67.0	114.3	156.9	33.3	323.1	14.9	39.3
March	993.2	797.0	10.8	22.8	66.9	117.2	158.4	33.5	333.0	15.2	39.2
April	993.5	795.8	10.9	22.3	66.6	117.4	158.6	34.1	330.9	15.6	39.4
May	997.4	796.5	11.1	22.0	66.3	117.3	159.5	34.1	330.5	15.9	39.8
June	1,003.0	801.3	11.0	22.4	66.5	118.8	160.3	34.7	331.4	16.0	40.2
July	981.6	782.5	10.5	22.7	65.2	113.0	156.8	33.9	325.5	15.6	39.3
August	955.4	756.6	11.0	22.9	63.8	112.1	155.8	31.2	305.6	15.2	39.0
September	989.9	788.1	10.7	23.0	64.9	117.8	159.3	33.3	323.6	15.5	40.0
October	974.3	777.4	10.6	23.4	62.3	112.9	156.4	31.4	326.3	15.4	38.7
November	959.1	767.2	10.1	23.2	59.9	109.3	154.7	31.1	325.7	15.4	37.8
December	917.8	730.3	9.1	22.2	56.6	103.8	151.1	29.1	306.6	15.5	36.3
1982: January	894.8	710.7	9.3	22.1	53.8	101.4	147.6	30.0	296.2	15.2	35.1
February	897.6	713.4	9.3	22.2	54.1	100.8	147.9	29.8	298.9	15.1	35.3
March	902.4	718.7	9.3	22.4	53.9	101.6	144.8	30.1	305.6	15.3	35.7
April	884.0	700.6	9.9	22.2	53.2	100.5	141.4	30.3	292.8	15.4	34.9
May	895.1	709.3	10.1	21.6	50.3	102.7	139.7	30.4	304.2	15.5	34.8
June	899.4	711.2	10.3	21.8	51.0	103.9	136.5	30.8	306.0	16.1	34.8
July	876.9	689.2	9.4	21.1	49.1	100.5	129.7	30.2	300.3	15.5	33.4
August	866.5	676.5	9.4	22.1	47.5	98.1	127.6	29.2	292.1	16.2	34.3
September	886.9	694.8	9.8	21.7	48.6	100.2	129.5	28.7	305.6	16.4	34.3
October	838.5	651.1	9.8	21.7	46.3	93.8	121.8	27.7	280.3	16.1	33.6
November	829.0	643.7	10.1	21.6	42.7	92.0	120.0	27.8	281.3	15.7	32.5
December	827.6	641.8	9.8	21.6	42.4	92.1	118.5	28.3	281.4	16.0	31.7

Source: Michigan Employment Security Commission.

TABLE C-4
Michigan Manufacturing and Nondurable Goods Employment, 1973-1982
(Thousands)

Year	Total Manufacturing	Total Nondurable Goods Manufacturing	Food and Kindred Products	Textile Mill Products and Apparel	Paper and Allied Products	Printing, Publishing and Allied	Chemicals, Petroleum and Related	Other Nondurable Goods
1973	1,178.8	225.7	51.7	27.3	26.9	36.9	45.6	37.3
1974	1,114.0	216.8	51.8	24.7	26.3	35.5	44.4	34.1
1975	983.7	205.5	51.5	22.2	23.5	34.6	45.9	27.8
1976	1,061.7	216.3	51.3	25.9	24.6	33.7	48.1	32.7
1977	1,128.4	222.5	51.9	27.3	24.4	32.3	49.7	36.9
1978	1,179.6	226.8	52.3	27.7	23.7	33.6	48.7	40.8
1979	1,160.1	225.0	52.1	25.8	23.8	34.1	47.8	41.4
1980	998.9	203.9	48.8	19.2	21.6	33.2	47.5	33.6
1981	977.7	197.2	45.9	19.4	21.6	32.5	46.1	31.7
1982	874.9	186.5	45.7	17.1	20.7	30.7	43.4	28.9
1981: January	987.4	197.1	46.3	18.9	21.5	32.4	46.1	31.9
February	978.7	196.3	45.4	18.7	21.8	32.7	46.0	31.7
March	993.2	196.2	44.4	19.3	21.8	32.5	45.9	32.3
April	993.5	197.7	44.6	20.0	21.7	32.8	46.2	32.4
May	997.4	200.9	46.1	20.7	21.6	32.9	46.5	33.1
June	1,003.0	201.7	46.3	21.0	21.7	32.9	46.9	32.9
July	981.6	199.1	47.6	19.1	21.4	32.3	46.8	31.9
August	955.4	198.8	47.5	18.9	21.6	32.5	46.4	31.9
September	989.9	201.8	47.2	20.9	21.5	33.0	46.2	33.0
October	974.3	196.9	45.5	20.0	21.5	32.4	46.0	31.5
November	959.1	191.9	45.2	18.5	21.3	31.4	45.2	30.3
December	917.8	187.5	45.0	16.4	21.2	32.0	44.9	28.0
1982: January	894.8	184.1	43.9	15.9	21.3	31.5	43.8	27.7
February	897.6	184.2	43.9	16.3	20.3	31.5	43.6	28.3
March	902.4	183.7	43.1	16.9	21.2	31.1	43.5	27.9
April	884.0	183.4	43.3	16.6	20.9	31.1	43.5	28.0
May	895.1	185.8	44.4	17.8	20.5	30.6	43.5	29.0
June	899.4	188.2	46.0	18.1	21.1	30.5	43.5	29.0
July	876.9	187.7	47.9	17.6	20.4	30.0	43.2	28.6
August	866.5	190.0	49.6	17.4	20.3	30.1	43.3	29.3
September	886.9	192.1	48.1	18.7	20.8	30.4	43.3	30.8
October	838.5	187.4	46.7	17.0	20.3	30.4	43.2	29.8
November	829.0	185.3	45.7	16.7	20.8	30.2	43.0	28.9
December	827.6	185.8	45.5	16.8	20.7	31.0	42.8	29.0

Source: Michigan Employment Security Commission.

TABLE C-5
Michigan Nonmanufacturing Employment, 1973-1982
(Thousands)

Year	Total Nonmanufacturing Industries	Construction	Transportation, Communication, & Utilities	Wholesale Trade	Retail Trade	Finance, Real Estate, & Insurance	Services	Mining
1973	1,571.1	131.4	153.6	150.6	503.3	130.3	489.0	12.9
1974	1,601.1	125.8	153.2	153.5	510.9	134.2	510.1	13.4
1975	1,569.8	106.3	144.8	146.9	509.6	134.0	514.0	13.8
1976	1,626.8	110.0	145.6	148.8	531.1	136.9	541.2	13.2
1977	1,717.3	122.8	150.8	151.8	557.1	142.2	580.5	12.1
1978	1,818.4	138.8	155.9	164.2	584.9	147.4	613.9	13.3
1979	1,855.9	139.5	160.6	170.4	590.9	154.5	626.8	13.2
1980	1,816.1	116.8	152.2	161.5	572.1	156.5	644.5	12.5
1981	1,782.3	103.0	144.8	158.6	554.7	154.0	655.1	12.1
1982	1,729.0	86.9	136.9	150.2	532.4	151.4	661.6	9.6
1981: January	1,754.7	96.2	146.4	158.5	547.8	155.2	638.6	12.0
February	1,742.4	92.8	145.8	157.8	538.0	154.9	641.5	11.6
March	1,750.9	94.4	146.0	158.3	542.1	154.4	643.9	11.8
April	1,768.4	99.8	145.5	157.2	552.5	154.7	646.3	12.4
May	1,789.7	105.8	145.6	159.6	560.3	154.8	651.1	12.5
June	1,805.9	108.7	145.6	160.0	564.0	155.0	659.7	12.9
July	1,800.7	110.9	145.4	157.1	557.6	155.1	662.3	12.3
August	1,801.2	109.9	145.1	158.8	557.3	154.6	662.5	13.0
September	1,806.7	109.6	145.1	159.6	560.1	153.5	666.2	12.6
October	1,799.1	110.0	143.7	159.7	556.5	152.8	666.4	12.0
November	1,791.8	103.8	142.4	158.9	558.7	152.0	664.4	11.6
December	1,776.5	94.2	140.6	157.7	561.3	151.3	661.4	10.0
1982: January	1,713.5	82.4	140.2	153.3	525.0	151.5	649.8	11.3
February	1,700.1	78.2	138.2	151.8	516.2	151.1	653.5	11.1
March	1,698.1	77.1	137.9	151.5	513.8	151.2	655.8	10.8
April	1,704.8	78.9	136.9	148.6	519.1	150.7	660.7	9.9
May	1,730.6	86.3	138.6	150.0	531.8	151.7	662.5	9.7
June	1,735.9	79.2	140.0	150.7	537.2	153.6	666.2	9.0
July	1,741.3	94.4	138.0	149.5	531.8	153.3	665.0	9.3
August	1,748.4	98.1	136.4	149.3	536.2	152.4	666.8	9.2
September	1,744.5	91.4	135.1	150.3	540.0	151.3	667.6	8.8
October	1,745.1	95.9	135.0	150.1	539.8	150.6	665.1	8.6
November	1,740.0	92.9	133.7	149.3	543.5	149.9	662.5	8.2
December	1,745.6	87.6	132.8	148.0	554.3	150.0	663.6	9.3

Source: Michigan Employment Security Commission.

TABLE C-6
Michigan Government Employment, 1973-1982
(Thousands)

Year	Total Government Employment	Federal Government	State Government	Local Government
1973	534.4	55.0	123.9	355.5
1974	562.6	56.3	127.5	378.8
1975	583.1	56.1	132.6	394.4
1976	594.6	55.5	135.1	404.0
1977	596.8	54.7	136.9	405.2
1978	611.4	54.6	143.6	413.2
1979	621.0	56.7	147.7	416.6
1980	627.8	58.4	151.1	418.3
1981	617.7	56.5	148.7	412.5
1982	610.3	56.7	143.5	410.1
1981: January	620.7	56.5	153.9	410.3
February	630.8	56.2	155.6	419.0
March	631.1	56.1	154.4	420.6
April	627.5	56.3	156.1	415.1
May	632.6	55.9	152.9	423.8
June	607.5	57.0	143.3	407.2
July	583.9	57.3	133.8	392.8
August	575.2	57.5	132.7	385.0
September	614.5	56.4	144.1	414.0
October	630.7	56.3	153.1	421.3
November	630.4	56.2	153.3	420.9
December	627.7	56.4	151.1	420.2
1982: January	606.3	55.4	146.8	404.1
February	620.0	55.3	149.7	415.0
March	623.3	55.1	147.1	421.1
April	617.4	56.7	147.9	421.8
May	619.3	57.5	141.0	420.8
June	595.4	58.2	136.0	401.2
July	578.8	59.1	126.9	392.8
August	572.8	57.8	127.5	387.5
September	591.0	56.7	140.0	394.3
October	631.6	56.1	152.3	423.2
November	639.1	56.3	155.4	427.4
December	629.1	56.5	151.5	421.1

Source: Michigan Employment Security Commission.

TABLE C-7
Michigan SMSA and County Employment and Unemployment Rates, 1981 and 1982

Area	1981 Number Employed	1981 Unemployment Rate	1982[1] Number Employed	1982[1] Unemployment Rate
Michigan	3,773,000	12.3	3,330,927	15.3
SMSA				
Ann Arbor-Ypsilanti	131,100	8.6	127,227	10.6
Battle Creek	71,000	11.0	69,409	15.5
Benton Harbor	63,900	12.7	60,864	15.6
Detroit	1,737,500	12.9	1,662,627	15.7
Flint	192,300	15.1	180,973	20.6
Grand Rapids	293,600	9.1	291,327	11.7
Jackson	58,800	11.4	62,957	15.7
Kalamazoo-Portage	126,500	8.7	124,327	10.9
Lansing-East Lansing	219,200	10.8	213,382	12.8
Muskegon-Muskegon Heights	67,600	13.4	63,500	17.2
Saginaw	89,200	12.2	86,073	16.2
Upper Peninsula	122,100	13.3	113,982	18.9
County				
Alcona	2,900	18.9	2,736	19.3
Alger	2,950	16.3	2,770	18.8
Allegan	30,725	11.2	30,573	15.1
Alpena	13,575	14.2	12,382	22.2
Antrim	6,025	18.0	5,684	21.1
Arenac	5,225	11.4	5,141	13.7
Baraga	2,700	15.0	2,604	21.3
Barry	17,375	10.9	16,961	15.8
Bay	46,700	12.4	46,554	15.4
Benzie	3,500	20.9	3,357	22.0
Berrien	63,900	12.7	60,864	15.6
Branch	17,975	12.0	16,773	14.8
Calhoun	53,675	11.1	52,452	15.5
Cass	19,850	10.6	19,559	13.3
Charlevoix	8,100	15.4	7,486	19.0
Cheboygan	8,325	20.1	7,836	21.7
Chippewa	10,125	19.8	9,986	22.7
Clare	8,200	14.6	7,923	15.5
Clinton	25,975	9.4	25,291	11.7
Crawford	3,625	16.7	3,366	18.0
Delta	17,125	10.1	15,298	17.2
Dickinson	11,125	12.2	10,514	14.8
Eaton	41,050	9.6	39,970	12.1
Emmet	12,000	14.1	11,539	14.2
Genesse	166,050	15.4	156,273	20.9
Gladwin	7,200	13.5	7,132	15.7
Gogebic	8,000	10.9	7,391	13.7
Grand Traverse	27,750	10.9	26,141	13.2
Gratiot	14,900	12.4	14,795	14.5
Hillsdale	18,950	9.2	18,977	13.4
Houghton	12,925	13.3	12,557	15.6
Huron	11,675	16.3	11,641	16.9
Ingham	128,075	11.3	124,673	12.8
Ionia	24,075	11.4	23,448	15.2
Iosco	8,450	13.1	7,966	13.9
Iron	5,400	15.3	5,627	15.2

TABLE C-7 (Continued)
Michigan SMSA and County Employment and Unemployment Rates, 1981 and 1982

Area	1981		1982[1]	
	Number Employed	Unemployment Rate	Number Employed	Unemployment Rate
Isabella	25,475	8.2	25,189	9.2
Jackson	58,800	11.4	56,366	15.7
Kalamazoo	96,250	8.4	94,570	10.6
Kalkaska	5,525	10.5	5,218	12.6
Kent	216,875	9.5	215,232	12.2
Keweenaw	675	18.2	652	20.2
Lake	2,600	14.8	2,477	15.4
Lapeer	27,950	11.6	26,748	15.8
Leelanau	7,075	11.6	6,670	13.7
Lenawee	32,875	13.8	31,661	17.6
Livingston	40,025	11.6	38,300	15.8
Luce	2,325	18.4	2,109	17.5
Mackinac	5,775	19.8	12,896	22.2
Macomb	277,225	14.4	265,316	17.0
Manistee	8,125	16.0	7,848	18.7
Marquette	26,350	12.6	21,120	23.9
Mason	10,775	13.5	10,116	18.4
Mecosta	13,550	10.3	12,954	14.0
Menominee	10,225	8.5	9,445	14.9
Midland	26,575	10.4	26,314	13.3
Missaukee	3,475	15.2	3,436	17.9
Monroe	56,150	11.2	55,136	14.5
Montcalm	17,875	14.7	17,136	19.0
Montmorency	1,800	23.4	1,809	22.2
Muskegon	59,325	13.2	58,111	17.3
Newaygo	11,975	16.4	12,509	16.7
Oakland	403,825	11.3	386,436	14.4
Oceana	8,275	15.3	6,843	16.7
Ogemaw	6,775	12.9	6,059	17.1
Ontonagon	3,225	10.4	3,023	21.6
Osceola	7,525	11.5	7,314	15.2
Oscoda	1,900	19.1	1,895	18.5
Otsego	8,500	9.8	7,764	12.9
Ottawa	76,700	8.0	76,107	10.3
Presque Isle	3,925	19.9	3,120	26.0
Roscommon	5,125	14.6	4,904	18.0
Saginaw	89,200	12.2	86,982	16.6
St. Clair	55,400	12.0	53,016	15.3
St. Joseph	23,775	10.5	23,064	13.6
Sanilac	13,600	16.9	13,775	17.8
Schoolcraft	3,200	17.4	2,941	19.5
Shiawasee	26,225	13.7	24,679	18.9
Tuscola	21,025	15.6	21,259	16.3
Van Buren	30,275	9.9	29,757	11.8
Washtenaw	131,100	8.6	127,227	11.2
Wayne	933,075	13.3	829,911	15.8
Wexford	8,725	15.3	8,625	18.5

[1]11-month average.

Source: Michigan Employment Security Commission.

TABLE C-8
U.S. and Michigan Manufacturing Industries,
Average Weekly and Hourly Earnings, 1970-1982

Year	Michigan			United States		
	Average Weekly Earnings	Average Hourly Earnings	Real Average Weekly Earnings (1967 Dollars)	Average Weekly Earnings	Average Hourly Earnings	Real Average Weekly Earnings (1967 Dollars)
1970	$168.22	$ 4.14	$143.29	$133.33	$3.35	$114.99
1971	187.72	4.59	154.25	142.44	3.57	117.34
1972	211.52	4.94	167.61	154.71	3.82	123.46
1973	228.63	5.27	169.99	166.46	4.89	124.76
1974	232.03	5.63	155.62	176.80	4.42	119.43
1975	250.76	6.15	156.43	190.79	4.83	117.56
1976	290.97	6.81	172.27	209.32	5.22	121.76
1977	326.27	7.54	180.86	228.90	5.68	125.00
1978	346.20	8.07	178.36	249.27	6.17	127.57
1979	359.72	8.73	164.41	269.34	6.69	123.71
1980	382.26	9.51	150.78	288.62	7.27	116.94
1981	426.27	10.53	153.83	318.00	7.99	116.74
1982	451.08	11.22	156.46	330.65	8.50	114.37
1981: January	419.01	10.19	156.06	308.05	7.69	118.38
February	398.14	10.16	147.35	308.05	7.74	117.04
March	422.52	10.27	157.54	311.22	7.80	117.40
April	420.88	10.31	154.51	317.58	7.90	119.03
May	437.09	10.46	158.83	320.39	7.95	119.10
June	441.60	10.56	157.43	320.40	7.99	118.10
July	423.64	10.52	149.64	320.80	8.02	116.91
August	426.77	10.50	150.48	323.20	8.08	116.89
September	413.31	10.70	145.43	319.90	8.14	114.54
October	438.41	10.88	155.74	321.53	8.14	114.87
November	431.40	10.86	154.29	322.26	8.20	114.81
December	443.67	10.95	159.42	320.62	8.20	113.90
1982: January	427.01	11.01	152.07	315.09	8.38	111.54
February	441.83	11.03	159.05	328.60	8.34	115.95
March	444.70	11.15	159.85	326.43	8.37	115.31
April	451.07	11.16	159.00	329.16	8.44	115.78
May	461.51	11.28	161.42	331.57	8.48	115.49
June	474.89	11.42	164.26	333.98	8.52	114.93
July	463.56	11.40	158.54	335.55	8.56	114.84
August	449.13	11.21	153.44	334.23	8.57	114.15
September	432.23	11.33	146.57	332.13	8.56	113.24
October	442.90	11.12	150.03	332.13	8.56	112.93
November	456.14	11.22	154.10	334.93	8.61	114.08
December[1]	468.02	11.34	159.95	335.32	8.62	114.68

[1]Preliminary.

Source: Michigan Employment Security Commission.

TABLE C-9
Michigan Manufacturing Industries, Average Weekly Earnings, 1970-1982

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Manufacturing Industries	$168.22	$187.72	$211.52	$228.63	$232.03	$250.76	$290.97	$326.27	$346.20	$359.72	$382.26	$426.27	$451.08
Durable goods	171.45	192.26	217.80	235.79	239.66	258.53	302.14	340.16	359.69	373.10	396.25	441.17	467.52
Basic lumber products	105.61	113.36	118.80	128.14	136.26	147.72	164.68	171.62	199.06	212.96	225.23	250.77	259.84
Furniture	135.32	147.71	159.34	164.55	175.78	181.16	198.62	222.20	238.90	251.50	268.09	299.50	309.14
Primary metals	170.55	194.07	217.94	243.12	256.15	268.20	319.81	357.01	390.99	397.07	420.20	467.46	489.82
Fabricated metals	174.07	179.02	204.50	221.19	222.41	240.64	285.85	324.34	334.09	337.88	360.42	399.63	419.16
Nonelectrical machinery	178.31	188.83	216.19	238.46	247.48	253.01	279.47	319.50	348.29	381.82	403.07	443.58	457.46
Electrical machinery	150.27	174.64	193.76	196.51	207.58	221.51	251.75	284.96	309.48	300.75	322.32	342.30	382.51
Transportation equipment	179.01	207.35	237.67	255.55	255.99	284.17	334.89	378.11	394.14	409.09	438.45	486.92	523.09
Nondurable goods	152.41	166.41	182.81	191.62	198.43	218.67	241.69	267.46	285.94	302.90	324.37	360.81	385.27
Food and kindred products	151.21	160.41	176.12	187.17	203.33	224.80	244.40	263.38	280.57	305.54	333.30	369.84	395.93
Textiles and apparel	138.49	169.86	191.52	200.83	207.44	227.62	258.26	303.92	324.85	331.47	345.37	404.91	454.94
Paper	153.52	172.23	191.44	201.87	212.53	225.55	253.78	282.90	312.99	329.36	352.21	399.09	433.64
Printing and publishing	163.54	168.98	185.05	189.39	197.48	212.99	231.08	248.78	267.20	285.82	298.98	327.72	333.12
Chemicals	166.92	184.66	201.49	210.16	218.89	247.68	276.98	313.47	338.56	355.32	372.54	404.74	423.43

Source: Michigan Employment Security Commission

TABLE C-10
Michigan Manufacturing Industries, Average Weekly Hours, 1970-1982

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Manufacturing Industries	40.6	40.9	42.8	43.4	41.2	40.8	42.7	43.3	42.9	41.2	40.2	40.5	40.2
Durable goods	40.6	40.9	43.0	43.9	41.4	40.9	43.0	43.7	43.3	41.4	40.2	40.4	40.1
Basic lumber products	39.0	39.0	38.9	39.2	38.4	38.6	39.3	39.5	39.1	38.6	38.0	40.4	37.9
Furniture	40.0	40.4	41.3	40.6	40.4	39.0	40.0	40.8	41.0	39.5	39.5	39.5	38.4
Primary metals	40.1	40.9	42.5	43.9	42.2	40.3	42.5	43.8	43.8	41.4	39.4	39.7	39.6
Fabricated metals	41.2	39.4	42.2	43.1	40.6	39.9	42.3	42.8	41.9	40.0	39.3	39.1	39.0
Nonelectrical machinery	41.4	40.2	42.7	44.2	43.1	41.0	41.7	43.1	43.4	43.3	42.0	41.6	40.2
Electrical machinery	40.9	42.2	43.0	42.6	41.7	40.6	42.0	43.0	42.9	40.5	40.8	39.8	39.8
Transportation equipment	40.4	41.5	43.9	44.7	41.0	41.6	44.6	44.8	44.3	41.6	40.1	40.8	40.8
Nondurable goods	40.3	40.8	41.7	41.2	40.3	40.3	41.1	41.7	41.5	40.5	40.3	40.7	40.4
Food and kindred products	40.9	40.7	41.4	41.0	41.4	41.7	41.8	41.9	41.2	41.3	41.6	41.5	41.3
Textile mill products and apparel	37.4	40.1	42.0	41.7	39.7	39.6	40.8	42.1	41.5	38.8	38.4	38.9	40.4
Paper	42.8	44.1	45.3	44.9	44.0	43.5	44.4	45.3	45.2	43.4	43.0	44.2	43.6
Printing and publishing	37.5	37.4	37.3	37.2	36.9	36.1	36.8	37.9	37.9	37.1	36.1	37.1	37.0
Chemicals	41.4	41.3	42.1	42.1	41.7	41.3	42.1	42.9	43.2	42.3	42.2	42.5	40.7

Source: Michigan Employment Security Commission.

TABLE C-11
Michigan Personal Income by Major Sources, 1973-1982
(Millions)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982[1]
Wage and Salary Disbursements	$33,869	$35,172	$35,462	$40,686	$46,176	$52,106	$56,943	$57,302	$60,871	$ 60,684
Farm	110	126	116	126	138	146	167	216	216	214
Mining	150	175	200	205	211	251	285	288	324	292
Contract Construction	1,689	1,711	1,499	1,625	1,956	2,398	2,664	2,352	2,336	2,199
Manufacturing	15,033	14,823	14,157	17,430	20,384	22,860	24,326	22,787	24,627	23,423
Durable	12,651	12,350	11,644	14,516	17,097	19,265	20,446	18,901	20,493	19,372
Nondurable	2,382	2,473	2,513	2,914	3,287	3,595	3,880	3,886	4,134	4,051
Wholesale Trade	1,848	1,953	2,064	2,130	2,360	2,752	3,137	3,203	3,401	3,495
Retail Trade	3,130	3,332	3,466	3,825	4,207	4,695	5,059	5,176	5,360	5,342
Finance, Ins., & Real Estate	1,146	1,265	1,351	1,473	1,634	1,872	2,117	2,340	2,484	2,669
Trans., Comm., & Utilities	1,881	1,953	1,988	2,249	2,509	2,876	3,192	3,284	3,481	3,557
Services	3,827	4,228	4,599	5,190	5,867	6,702	7,567	8,396	9,174	9,786
Government	5,007	5,452	5,965	6,365	6,837	7,461	8,325	9,149	9,350	9,590
Other Industries	48	53	57	68	76	93	105	111	118	118
Other Labor Income	3,162	3,449	3,785	4,471	5,369	6,127	6,750	6,998	7,757	8,173
Proprietors' Income	2,845	2,824	2,795	2,895	3,430	3,856	4,242	4,198	4,354	4,194
Farm	516	582	510	357	457	500	543	488	474	384
Nonfarm	2,329	2,242	2,285	2,538	2,973	3,356	3,699	3,710	3,880	3,810
Total Income by Place of Work	39,876	41,445	42,042	48,052	54,975	62,089	67,935	68,498	72,981	73,051
Less: Contributions for Soc. In.	1,944	2,080	2,121	2,383	2,572	2,934	3,328	3,362	3,863	3,915
Plus: Residence Adjustment	191	204	229	285	326	375	430	442	471	473
Net Income by Place of Residence	38,125	39,569	40,150	45,954	52,729	59,530	65,037	65,578	69,589	69,609
Plus: Dividends, Interest, Rent	5,442	6,198	6,554	7,240	8,129	9,375	10,827	12,629	15,480	17,449
Plus: Transfer Payments	4,816	5,973	7,836	8,130	8,432	8,871	10,117	13,443	14,244	15,872
Total Personal Income by Residence	$48,383	$51,739	$54,540	$61,324	$69,290	$77,776	$85,981	$91,650	$99,314	$102,930
Total Real Personal Income (1967 Dollars)	$35,972	$34,701	$34,024	$36,308	$38,409	$40,070	$39,297	$36,154	$35,840	$ 35,702

[1]Estimate.

Source: U.S. Department of Commerce, Bureau of Economic Analysis. 1982 Estimates by Michigan Department of Management and Budget.

TABLE C-12

Michigan Personal Income by Major Sources, Quarterly, 1976-1981[1]

(Millions, Seasonally Adjusted Annual Rate)

	1976				1977				1978			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
Wage and Salary Disbursements	$ 38,867	$ 40,315	$ 40,933	$ 42,629	$ 43,610	$ 45,490	$ 47,375	$ 48,229	$ 49,622	$ 51,059	$ 52,868	$ 54,873
Farm	122	126	127	129	133	137	139	141	141	145	147	150
Mining	195	194	217	216	211	230	205	197	219	246	263	274
Contract Construction	1,525	1,622	1,655	1,700	1,720	1,938	2,056	2,110	2,266	2,358	2,460	2,509
Manufacturing	16,365	17,283	17,502	18,568	19,113	20,065	21,069	21,285	21,609	22,312	23,219	24,300
Durable	13,573	14,407	14,542	15,542	15,962	16,795	17,740	17,890	18,161	18,773	19,603	20,525
Nondurable	2,792	2,876	2,960	3,027	3,151	3,271	3,329	3,396	3,448	3,540	3,616	3,775
Wholesale Trade	2,107	2,112	2,134	2,169	2,219	2,327	2,433	2,459	2,608	2,692	2,802	2,905
Retail Trade	3,685	3,800	3,870	3,945	4,001	4,141	4,289	4,397	4,514	4,645	4,746	4,877
Finance, Insur., & Real Estate		1,409	1,453	1,498	1,530	1,560	1,613	1,661	1,702	1,773	1,837	1,899
Trans., Comm., & Utilities	2,174	2,204	2,261	2,356	2,356	2,463	2,580	2,635	2,775	2,860	2,891	2,978
Services	4,993	5,164	5,236	5,367	5,567	5,739	5,993	6,170	6,408	6,556	6,832	7,013
Government	6,228	6,291	6,365	6,578	6,662	6,763	6,872	7,050	7,228	7,313	7,514	7,789
Federal Civilian	817	823	827	867	862	858	884	925	959	985	990	1,027
Federal Military	210	205	205	208	202	199	174	183	180	179	182	185
State and Local	5,201	5,263	5,334	5,503	5,599	5,707	5,814	5,942	6,089	6,149	6,342	6,577
Other Industries	64	67	68	72	69	74	78	83	83	95	95	97
Other Labor Income	4,232	4,420	4,491	4,741	4,992	5,243	5,562	5,677	5,866	5,988	6,211	6,443
Proprietors' Income	2,912	2,886	2,826	2,957	3,238	3,353	3,479	3,651	3,687	3,835	3,945	3,957
Farm	461	378	293	296	436	425	429	537	503	500	526	470
Nonfarm	2,451	2,508	2,533	2,662	2,802	2,929	3,050	3,114	3,184	3,335	3,419	3,487
Total Income by Place of Work	46,010	47,662	48,250	50,327	51,840	54,086	56,416	57,557	59,175	60,883	63,023	65,273
Less: Contributions for Soc.In.	2,321	2,388	2,385	2,439	2,459	2,542	2,635	2,651	2,833	2,882	2,964	3,056
Plus: Residence Adjustment	277	281	287	293	308	324	333	340	353	371	381	394
Net Income by Place of Residence	43,966	45,515	46,152	48,181	49,689	51,867	54,113	55,247	56,694	58,372	60,440	62,611
Plus: Dividends, Interest, Rent	6,933	7,120	7,347	7,559	7,843	7,993	8,236	8,442	8,769	9,113	9,582	10,038
Plus: Transfer Payments	8,064	7,994	8,185	8,279	8,290	8,311	8,518	8,610	8,703	8,787	8,939	9,056
Total Personal Income by Residence	$ 58,964	$ 60,629	$ 61,684	$ 64,018	$ 65,821	$ 68,171	$ 70,867	$ 72,299	$ 74,167	$ 76,272	$ 78,960	$ 81,704

TABLE C-12 (continued)
Michigan Personal Income by Major Sources, Quarterly, 1976-1981[1]
(Millions, Seasonally Adjusted Annual Rate)

	1979				1980				1981			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
Wage and Salary Disbursements	$ 57,007	$ 57,033	$ 57,023	$ 56,707	$ 57,470	$ 55,776	$ 56,664	$ 59,316	$ 59,988	$ 61,364	$ 61,856	$ 60,274
Farm	156	159	168	184	202	216	224	223	219	217	213	213
Mining	268	278	292	301	291	296	267	296	295	321	351	331
Contract Construction	2,575	2,676	2,723	2,681	2,597	2,322	2,193	2,297	2,326	2,362	2,331	2,323
Manufacturing	25,277	24,759	24,125	23,144	23,435	21,709	22,076	23,926	24,440	25,152	25,294	23,623
Durable	21,403	20,867	20,249	19,267	19,558	17,893	18,228	19,926	20,377	20,931	21,086	19,578
Nondurable	3,874	3,892	3,876	3,877	3,877	3,817	3,848	4,000	4,063	4,220	4,208	4,045
Wholesale Trade	3,029	3,122	3,187	3,209	3,216	3,179	3,175	3,248	3,287	3,365	3,447	3,504
Retail Trade	5,013	5,026	5,086	5,111	5,180	5,031	5,184	5,308	5,291	5,365	5,456	5,327
Finance, Insur., & Real Estate	2,048	2,085	2,152	2,183	2,249	2,316	2,360	2,433	2,374	2,479	2,524	2,560
Trans., Comm., & Utilities	3,134	3,148	3,205	3,283	3,192	3,215	3,293	3,436	3,378	3,499	3,562	3,487
Services	7,228	7,415	7,721	7,905	8,179	8,272	8,431	8,700	8,965	9,166	9,209	9,357
Government	8,179	8,264	8,258	8,598	8,821	9,110	9,330	9,335	9,294	9,322	9,353	9,432
Federal Civilian	1,038	1,033	1,026	1,059	1,075	1,151	1,153	1,161	1,161	1,158	1,180	1,203
Federal Military	183	182	184	195	193	196	200	224	226	229	236	268
State and Local	6,958	7,049	7,048	7,345	7,553	7,764	7,977	7,950	7,908	7,934	7,937	7,962
Other Industries	101	103	107	110	109	111	112	113	121	117	116	117
Other Labor Income	6,722	6,761	6,762	6,755	6,911	6,758	6,952	7,372	7,523	7,800	7,938	7,765
Proprietors' Income	4,065	4,244	4,331	4,329	4,380	3,950	4,156	4,308	4,360	4,362	4,395	4,299
Farm	520	613	534	504	554	399	512	488	423	445	537	489
Nonfarm	3,545	3,631	3,797	3,825	3,826	3,551	3,644	3,820	3,937	3,917	3,858	3,810
Total Income by Place of Work	67,794	68,038	68,116	67,791	68,761	66,484	67,752	70,996	71,871	73,527	74,189	72,338
Less: Contributions for Soc.Ins.	3,362	3,342	3,323	3,283	3,389	3,247	3,319	3,491	3,828	3,910	3,921	3,794
Plus: Residence Adjustment	416	423	435	445	437	439	438	452	468	467	475	476
Net Income by Place of Residence	64,848	65,118	65,227	64,953	65,809	63,676	64,871	67,957	68,511	70,084	70,744	69,020
Plus: Dividends, Interest, Rent	10,383	10,579	10,952	11,406	12,003	12,399	12,767	13,348	14,384	15,112	15,964	16,461
Plus: Transfer Payments	9,241	9,512	10,473	11,243	12,054	13,194	14,332	14,193	13,970	14,030	14,305	14,673
Total Personal Income by Residence	$ 84,472	$ 85,200	$ 86,652	$ 87,601	$ 89,866	$ 89,269	$ 91,970	$ 95,499	$ 96,864	$ 99,225	$ 101,012	$ 100,154

[1]The U.S. Bureau of Economic Analysis recently updated the personal income data on an annual basis, but has not yet updated the quarterly data. Therefore, these quarterly personal income data are not consistent with the annual data presented in Table C-11; however, they do provide a reasonable quarterly trend for personal income.

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

TABLE C-13
U.S. and Major Industrial States
Personal Income and Real Per Capita Personal Income, 1978-1981

State	Personal Income (Millions)				Real Personal Income (Millions of 1967 dollars)				Real Per Capita Personal Income (1967 dollars)			
	1978	1979	1980	1981	1978	1979	1980	1981	1978	1979	1980	1981
United States	$1,726,732	$1,943,579	$2,153,593	$2,405,598	$883,691	$894,011	$872,607	$883,112	$3,979	$3,981	$3,841	$3,851
MICHIGAN	77,776	85,981	91,650	99,314	40,070	39,297	36,154	35,840	4,354	4,249	3,896	3,894
California	200,358	228,882	258,553	288,481	102,642	106,506	103,920	104,145	4,494	4,580	4,379	4,304
Florida	66,938	77,674	90,268	103,502	34,257	35,729	36,575	37,996	3,751	3,773	3,709	3,732
Illinois	100,784	112,010	119,475	132,675	52,850	52,195	48,666	49,322	4,622	4,569	4,251	4,363
Indiana	41,430	46,148	48,774	53,147	21,246	21,053	19,525	19,640	3,901	3,845	3,548	3,592
Massachusetts	46,182	51,538	57,733	64,248	23,916	24,208	24,055	24,090	4,164	4,213	4,183	4,172
New Jersey	65,134	72,184	80,587	89,788	33,214	33,873	33,974	34,468	4,515	4,594	4,598	4,655
New York	147,709	162,484	180,573	201,823	75,904	76,571	76,385	77,894	4,284	4,342	4,338	4,425
Ohio	84,886	97,328	102,121	111,179	43,199	42,548	40,284	40,326	4,002	3,940	3,722	3,741
Pennsylvania	90,905	101,372	111,622	123,096	46,738	47,040	45,691	45,490	3,939	3,962	3,841	3,832
Texas	101,916	118,659	136,263	158,431	50,679	52,227	52,308	54,934	3,018	3,961	3,668	3,720
Wisconsin	35,666	40,485	43,932	47,579	18,547	18,503	17,468	16,986	4,005	3,966	3,703	3,583

Source: Compiled by the Michigan Department of Management and Budget based on data from the U.S. Department of Commerce, Bureau of Economic Analysis, and the U.S. Department of Labor, Bureau of Labor Statistics.

TABLE C-14
U.S. Consumer Price Index--All Urban Consumers, 1982
(1967=100)

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual Average	Percent Change 1981-82
ALL ITEMS	282.5	283.4	283.1	284.3	287.1	290.6	292.2	292.8	293.3	294.1	293.6	292.4	289.1	6.1
FOOD AND BEVERAGES	273.6	275.8	275.6	276.5	278.1	280.2	280.8	279.9	280.1	279.6	279.1	279.1	278.2	4.1
Food	281.0	283.3	283.0	283.9	285.5	287.8	288.5	287.4	287.6	287.0	286.4	286.5	285.7	4.0
Food at home	275.3	278.0	277.1	277.9	279.8	282.6	282.8	280.8	280.6	279.4	278.3	277.8	279.2	3.4
Cereals and bakery prod.	279.6	280.9	281.3	281.7	283.3	283.6	284.3	284.8	284.6	285.0	285.5	286.3	283.4	4.5
Meats, pltry, fish, eggs	253.7	256.8	256.9	258.3	261.0	266.0	268.5	265.4	267.8	265.1	263.6	261.6	262.1	3.7
Dairy products	245.8	246.5	246.5	247.5	247.0	246.3	247.5	247.5	247.0	247.1	247.4	247.8	247.0	1.4
Fruits and vegetables	294.7	301.5	293.1	294.0	297.9	305.6	299.7	291.4	284.1	280.7	276.1	277.6	291.4	5.5
Sugar and Sweets	361.6	364.2	365.5	365.3	365.7	366.8	369.5	370.1	371.2	370.6	370.3	369.2	367.5	-0.2
Food away from home	299.8	301.2	302.4	303.6	304.8	305.9	307.6	308.7	309.8	310.7	311.4	312.6	306.5	5.3
Alcoholic beverages	204.0	205.6	206.6	207.4	208.0	208.4	209.2	210.1	210.1	210.6	210.9	210.9	208.5	4.5
HOUSING	306.1	307.3	306.7	309.4	313.8	317.5	319.2	320.1	319.7	320.7	319.0	316.3	314.7	7.2
Shelter	328.3	329.5	327.6	331.4	336.7	340.9	342.8	344.2	342.6	342.8	340.7	335.9	337.0	7.1
Rent, residential	217.8	218.6	219.6	220.1	221.8	222.6	224.8	226.0	226.9	228.9	230.2	230.8	224.0	7.6
Other rental costs	313.6	316.9	320.1	323.7	323.6	327.3	330.0	333.9	343.0	341.6	337.8	333.0	328.7	12.1
Homeownership	367.5	368.7	365.7	370.6	377.4	382.8	384.5	385.9	383.0	382.8	379.5	372.9	376.8	6.8
Fuel & other utilities	336.2	337.1	339.3	339.2	345.4	352.2	354.7	356.3	359.5	363.4	362.2	364.1	350.8	9.9
Fuels	426.9	427.6	430.5	428.2	438.0	448.4	452.0	454.0	458.5	464.5	461.9	464.0	446.2	9.6
Oil, coal & botl. gas	686.0	683.1	664.0	641.3	644.6	656.6	659.9	659.9	662.8	677.2	691.3	688.5	667.9	-1.2
Gas (piped) & electricity	367.4	368.7	375.9	377.8	388.6	398.5	402.1	404.4	409.2	413.4	407.6	410.6	393.8	13.8
Hsehld. furnish & oper.	228.4	230.2	231.6	232.6	233.4	233.7	234.1	233.4	234.2	235.4	235.1	235.7	233.2	5.4
APPAREL AND UPKEEP	187.3	188.0	191.1	191.9	191.5	190.8	189.7	191.8	194.9	195.5	195.4	193.6	191.8	2.6
Apparel commodities	177.0	177.6	180.8	181.4	180.9	180.0	178.6	180.8	184.1	184.6	184.3	182.3	181.0	1.9
Men's and boys'	178.7	179.3	181.7	183.1	183.8	183.1	182.4	183.7	186.5	188.6	189.0	187.4	183.9	3.6
Women's and girls'	154.3	154.7	160.3	160.9	159.1	157.3	154.6	159.2	163.6	163.0	162.2	159.6	159.1	1.0
Infants' and toddlers	259.6	262.2	264.7	267.0	269.0	268.7	268.8	272.4	276.8	275.8	274.2	273.1	269.4	3.7
Footwear	202.8	202.8	204.9	205.6	206.5	206.6	206.4	204.4	206.2	206.8	206.9	205.9	205.5	2.5
TRANSPORTATION	289.9	288.0	285.1	282.9	285.6	292.8	296.1	296.2	295.3	295.5	295.8	294.8	291.5	4.1
Private	286.6	284.5	281.3	278.8	281.5	288.9	292.3	292.4	291.1	291.1	291.4	290.4	287.5	3.6
Public	334.9	336.8	336.7	339.3	342.1	345.6	347.2	348.1	353.3	356.3	356.0	355.6	346.0	10.9
MEDICAL CARE	313.4	316.2	318.8	321.7	323.8	326.4	330.0	333.3	336.0	338.7	342.2	344.3	328.7	11.6
ENTERTAINMENT	229.2	231.2	232.8	233.9	234.4	235.6	236.6	237.4	238.3	240.3	239.9	240.1	235.8	6.5
OTHER GOODS & SERVICES	248.4	250.3	252.2	253.8	255.0	255.8	257.2	258.3	266.6	271.2	273.8	276.6	259.9	10.3
Commodities	258.8	259.5	258.8	258.9	261.5	265.1	266.5	266.4	266.6	267.5	267.8	267.7	263.8	4.0
Commodities less food	245.9	246.0	245.2	245.0	247.8	251.9	253.5	253.8	253.9	255.4	256.0	255.8	250.9	4.0

Source: U.S. Department of Labor, Bureau of Labor Statistics.

TABLE C-15
Detroit Consumer Price Index--All Urban Consumers, 1982
(1967=100)

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual Average	Percent Change 1981-82
ALL ITEMS	280.8	277.8	278.2	283.7	285.9	289.1	292.4	292.7	294.9	295.2	296.0	292.6	288.3	4.0
FOOD AND BEVERAGES	267.2	269.5	268.9	269.5	270.2	272.2	272.5	270.7	271.1	270.2	270.9	269.8	270.2	3.7
Food	271.3	273.7	273.1	273.5	274.3	276.7	276.6	274.8	275.1	274.3	274.4	273.8	274.3	3.8
Food at home	274.0	277.4	274.6	275.0	278.0	281.4	281.4	278.6	278.9	277.2	277.7	275.5	277.5	4.6
Cereals and bakery prod.	285.2	288.1	286.6	286.6	290.7	291.1	293.7	292.0	294.9	296.8	297.0	294.7	291.5	5.4
Meats,pltry,fish,eggs	257.7	262.4	257.6	257.7	264.2	270.9	270.4	263.5	269.0	264.7	264.1	263.5	263.8	5.2
Dairy products	253.6	257.2	258.4	259.0	258.5	258.9	259.1	261.0	256.2	258.8	257.8	255.2	257.8	2.1
Fruits and vegetables	267.9	271.5	266.4	271.6	274.5	275.4	277.2	271.7	258.5	250.3	250.7	248.3	265.3	5.7
Other foods at home	333.8	335.5	333.2	331.4	330.8	334.3	332.1	333.8	335.4	336.7	340.3	335.9	334.4	4.4
Food away from home	375.9	276.2	280.8	281.4	276.7	276.7	276.7	277.2	277.4	278.7	278.0	280.9	278.1	2.0
Alcoholic beverages	238.0	238.3	238.4	241.2	242.2	238.4	243.8	240.9	243.7	241.3	249.5	242.6	241.5	2.2
HOUSING	304.0	296.1	297.3	310.1	311.7	315.6	319.7	320.3	324.3	324.8	326.4	319.8	314.2	3.2
Shelter	330.6	317.9	316.0	336.6	337.6	340.5	344.9	345.2	352.1	351.2	356.1	345.6	339.5	1.6
Rent, residential	212.9	210.5	211.1	211.3	211.7	215.0	217.5	217.5	214.2	215.8	217.1	217.2	214.3	4.0
Other rental costs	282.8	282.8	285.6	285.6	275.1	275.1	277.5	277.5	294.7	298.9	294.2	295.5	285.4	10.7
Homeownership	353.5	338.6	336.1	360.9	362.4	365.2	370.1	370.5	378.9	377.4	383.2	370.4	363.9	1.2
Fuel & other utilities	342.0	344.0	354.6	347.3	357.4	372.5	384.6	386.0	381.5	383.3	372.2	377.7	366.9	10.0
Fuels	406.1	409.1	422.8	411.2	426.8	450.0	467.0	469.3	461.1	460.8	443.7	452.1	440.0	9.3
Oil, coal & bottled gas	718.3	718.2	704.4	679.3	675.9	701.5	703.0	703.5	699.9	703.5	707.8	704.9	701.7	-1.4
Gas(piped)& electricity	369.9	373.3	389.8	379.6	397.1	419.8	438.3	440.8	432.2	431.5	412.2	421.7	408.9	11.5
Hsehld. furnish & oper.	208.3	208.1	212.8	215.1	213.2	213.7	212.1	212.8	213.5	217.5	217.3	214.9	213.3	3.8
APPAREL AND UPKEEP	153.0	157.1	158.7	159.3	159.2	154.2	162.2	165.1	173.0	171.1	170.1	163.7	162.2	1.9
Apparel commodities	139.2	143.5	145.2	145.5	145.4	140.0	148.7	151.8	159.9	157.8	156.6	149.6	148.6	0.4
Men's and boys'	147.1	157.3	159.3	156.8	155.8	151.9	160.2	169.7	176.7	173.6	175.9	171.2	163.0	2.4
Women's and girls'	126.7	127.4	128.3	130.8	130.3	121.1	133.4	135.1	143.7	141.0	140.4	130.4	132.4	-2.3
Footwear	145.4	149.0	149.8	160.4	160.8	159.6	162.3	158.1	163.7	161.3	158.1	158.6	157.3	0.2
TRANSPORTATION	290.3	286.9	285.2	284.3	288.2	295.6	297.5	297.7	293.8	294.1	293.9	293.5	291.8	4.3
Private	289.6	286.1	284.5	283.6	287.7	295.0	296.7	296.9	292.7	292.9	292.8	292.5	290.9	4.3
Public	306.0	304.7	302.1	300.1	300.1	307.9	315.2	315.4	320.1	320.6	321.5	317.6	310.9	4.1
MEDICAL CARE	331.6	334.9	338.3	340.4	344.5	344.4	348.6	351.5	354.9	356.0	356.0	355.9	346.4	8.2
ENTERTAINMENT	203.7	208.5	210.4	207.6	209.0	207.7	213.8	214.0	214.8	218.9	218.7	218.7	212.2	5.1
OTHER GOODS & SERVICES	239.8	242.7	244.8	245.3	254.7	254.8	256.2	256.0	268.9	272.3	273.3	276.6	257.1	12.2
Commodities	243.0	242.8	243.7	245.0	249.9	252.4	255.0	255.3	256.6	256.8	257.4	255.2	251.1	2.8
Commodities less food & bev.	228.2	227.1	228.5	230.0	236.3	239.0	242.2	243.4	244.8	245.5	246.1	243.5	237.9	2.5

Source: U.S. Department of Labor, Bureau of Labor Statistics.

TABLE C-16
U.S. and Detroit Consumer Price Indices, 1969-1982
(Annual Averages)

	1969		1970		1971		1972		1973		1974		1975	
	U.S.	Detroit	U.S.	Detroit	U.S.	Detroit	U.S.	Detroit	U.S.	Detroit	U.S.	Detroit	U.S.	Detroit
All items	109.8	110.6	116.3	117.4	121.3	121.7	125.3	126.2	133.1	134.5	147.7	149.1	161.2	160.3
Food	108.9	108.9	114.9	115.2	118.4	117.3	123.5	122.9	141.4	143.6	161.7	164.1	175.4	171.6
Food at home	108.2	109.1	113.7	115.4	116.4	116.1	121.6	121.6	141.4	144.8	162.4	165.3	175.8	171.1
Cereals and bakery products	103.3	104.7	108.9	110.9	113.9	114.5	114.7	115.8	127.7	134.5	166.1	182.1	184.8	189.8
Meats, poultry, fish and eggs	110.3	113.5	116.5	121.1	116.9	119.1	128.0	131.2	160.4	166.5	163.9	167.4	178.0	172.2
Dairy products	106.7	108.5	111.8	113.6	115.3	113.4	117.1	114.7	127.9	127.5	151.9	154.9	156.6	158.8
Fruits and vegetables	109.3	106.1	113.4	110.9	119.1	114.9	125.0	118.4	142.5	135.6	165.8	158.9	171.0	157.4
Other foods at home[1]	107.9	106.9	114.1	113.1	115.9	114.4	116.7	116.1	130.3	132.5	162.8	164.2	185.6	177.9
Food away from home	111.6	108.6	119.9	115.0	126.1	123.3	131.1	128.6	141.4	138.8	159.4	159.2	174.3	174.1
Housing	110.8	113.7	118.9	124.2	124.3	128.3	129.2	133.3	135.0	137.4	150.6	151.0	166.7	163.8
Shelter	113.3	118.7	123.6	133.2	128.8	137.3	134.4	143.1	140.7	147.4	154.3	159.5	169.7	170.3
Rent	105.7	107.1	110.1	111.5	115.2	116.6	119.0	120.4	124.2	124.4	130.2	129.8	137.3	136.1
Homeownership	116.0	121.0	128.5	137.6	133.7	141.4	140.1	147.7	146.7	152.1	163.2	165.5	181.7	177.2
Fuel and utilities	103.6	101.5	107.6	104.6	115.1	110.7	120.2	115.4	126.9	121.2	150.2	142.3	167.8	161.6
Fuel oil and coal	105.6	105.4	110.1	109.8	117.5	113.7	118.5	113.9	136.0	129.3	214.6	208.7	235.3	226.7
Gas and electricity	102.8	100.8	107.3	103.3	114.7	111.3	120.5	116.9	126.4	123.1	145.8	144.4	169.6	171.1
Hsehld. furnish. and oper.	109.0	106.3	113.4	109.4	118.1	112.6	121.0	115.1	124.9	117.3	140.5	130.5	158.1	145.0
Apparel and Upkeep	111.5	108.9	116.1	112.0	119.8	115.5	122.3	118.3	127.1	122.3	136.2	132.4	142.3	137.9
Men's and boys'	112.4	112.5	117.1	116.7	120.3	117.3	121.9	117.3	126.4	121.8	136.4	135.7	142.2	144.5
Women's and girls'	111.7	104.3	116.0	104.6	120.1	111.2	123.0	115.4	127.3	117.4	134.9	123.2	138.1	126.5
Footwear	111.6	111.2	117.7	118.5	121.5	120.7	124.9	124.8	130.2	132.6	138.1	144.6	144.2	146.9
Transportation	107.2	107.4	112.7	109.9	118.6	114.6	120.0	116.5	123.8	123.6	137.7	138.7	150.6	149.1
Private	106.5	106.6	111.1	108.5	116.1	111.8	117.5	113.9	121.5	121.3	136.6	137.2	149.8	148.0
Public	112.7	117.7	128.5	126.1	137.7	148.4	143.4	148.5	144.8	150.8	148.0	156.1	158.6	160.8
Medical Care	113.4	114.4	120.6	124.4	128.4	134.1	132.5	141.4	137.7	148.4	150.5	162.8	168.6	187.4

TABLE C-16 (Continued)
U.S. and Detroit Consumer Price Indices, 1969-1982
(Annual Averages)

	1976		1977		1978		1979		1980		1981		1982	
	U.S.	Detroit	U.S.	Detroit	U.S.	Detroit	U.S.	Detroit	U.S.	Detroit	U.S.	Detroit	U.S.	Detroit
All items	170.5	168.9	181.5	180.4	195.4	194.1	217.4	218.8	246.8	253.5	272.4	277.1	289.1	288.3
Food	180.8	176.5	192.2	186.0	211.4	205.5	234.5	226.5	254.6	245.2	274.6	264.2	285.7	274.3
Food at home	179.5	173.3	190.2	183.5	210.2	203.5	232.9	225.8	251.5	246.1	269.9	265.2	279.2	277.5
Cereals and bakery products	180.6	184.5	183.5	193.7	199.9	208.9	220.1	229.2	246.4	254.8	271.1	276.6	283.4	291.5
Meats, poultry, fish and eggs	179.4	172.4	178.4	171.9	204.3	196.9	234.2	225.9	242.2	235.5	252.8	250.8	262.1	263.8
Dairy products	169.3	167.3	173.9	173.9	185.6	188.9	207.1	221.2	227.4	242.3	243.6	252.5	247.0	257.8
Fruits and vegetables	175.4	158.9	191.6	171.0	212.9	192.3	230.0	202.6	246.7	220.6	276.3	250.9	291.4	265.3
Other foods at home[1]	189.9	184.5	224.1	215.3	N.A.	244.2	N.A.	258.9	N.A.	295.8	N.A.	320.3	N.A.	334.3
Food away from home	186.1	186.4	200.3	199.2	218.4	218.7	242.9	237.4	267.0	253.0	291.0	272.7	306.5	278.1
Housing	177.2	173.2	189.6	184.6	202.8	196.7	227.6	229.4	263.3	278.9	293.5	304.6	314.7	314.2
Shelter	179.0	177.2	191.1	188.0	210.4	204.0	239.7	245.2	281.7	309.8	314.7	334.2	337.0	339.5
Rent	145.4	142.1	153.5	150.8	164.0	162.6	176.0	176.5	191.6	194.1	208.2	206.1	224.0	214.3
Homeownership	191.7	184.3	204.9	195.4	227.2	212.2	262.4	258.9	314.0	332.8	352.7	359.7	376.8	363.9
Fuel and utilities	182.7	182.8	202.2	205.7	216.0	224.4	239.3	249.6	278.6	286.8	319.2	333.6	350.8	366.9
Fuel oil and coal	250.8	248.6	283.4	285.7	298.3	305.3	403.1	423.0	556.0	579.0	675.9	711.7	667.9	701.7
Gas and electricity	188.9	197.7	213.4	223.0	232.6	247.0	257.8	277.3	301.8	319.7	345.9	366.8	393.8	408.9
Hsehld. furnish. and oper.	168.5	156.6	177.0	160.5	177.7	161.6	190.3	174.7	205.4	188.5	221.3	205.5	233.2	213.3
Apparel and Upkeep	147.6	142.0	154.2	146.7	159.6	148.1	166.6	148.1	178.4	155.6	186.9	159.1	191.8	162.2
Men's and boys'	147.2	151.5	154.0	154.3	157.3	152.1	160.8	150.2	168.4	149.5	177.5	159.2	183.9	163.0
Women's and girls'	141.9	128.1	146.4	130.9	149.3	133.1	151.9	129.2	155.1	138.5	157.5	135.5	159.1	132.4
Footwear	149.9	147.2	156.9	150.8	163.8	147.5	176.7	156.6	190.3	161.7	200.4	157.0	205.5	157.3
Transportation	165.5	160.2	177.3	174.7	185.5	184.9	212.0	210.0	249.7	246.8	280.0	279.7	291.5	291.8
Private	164.6	159.5	176.7	174.8	185.0	184.5	212.3	210.1	249.2	246.5	277.5	278.8	287.5	290.9
Public	174.2	168.6	182.4	172.6	188.7	192.8	200.3	207.3	251.6	253.9	312.0	298.6	346.0	310.9
Medical Care	184.7	209.1	202.4	234.8	219.4	251.8	239.7	274.5	265.9	297.7	294.5	320.1	328.7	346.4

[1]Due to revisions made in the U.S. Consumer Price Index in 1978, the other foods at home category has been changed and is not comparable to previous years.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

TABLE C-17

U.S. and Detroit Consumer Price Indices and Inflation Rates, 1942-1982

Year	U.S. Index	U.S. Percent Change	Detroit Index	Detroit Percent Change
1942	48.8	10.7	49.5	11.0
1943	51.8	6.1	52.1	5.3
1944	52.7	1.7	52.9	1.5
1945	53.9	2.3	54.3	2.6
1946	58.5	8.5	59.2	9.0
1947	66.9	14.4	67.4	13.8
1948	72.1	7.8	72.7	7.9
1949	71.4	-1.0	71.8	-1.2
1950	72.1	1.0	73.0	1.7
1951	77.8	7.9	78.8	7.9
1952	79.5	2.2	80.7	2.4
1953	80.1	0.8	82.0	1.6
1954	80.5	0.5	82.3	0.4
1955	80.2	-0.4	82.2	-0.1
1956	81.4	1.5	83.8	1.9
1957	84.3	3.6	86.2	2.9
1958	86.6	2.7	87.5	1.5
1959	87.3	0.8	87.4	-0.1
1960	88.7	1.6	88.2	0.9
1961	89.6	1.0	88.7	0.7
1962	90.6	1.1	88.9	0.2
1963	91.7	1.2	89.8	1.0
1964	92.9	1.3	90.5	0.8
1965	94.5	1.7	92.6	2.3
1966	97.2	2.9	96.7	4.4
1967	100.0	2.9	100.0	3.4
1968	104.2	4.2	104.3	4.3
1969	109.8	5.4	110.6	6.0
1970	116.3	5.9	117.4	6.1
1971	121.3	4.3	121.7	3.7
1972	125.3	3.3	126.2	3.7
1973	133.1	6.2	134.5	6.6
1974	147.7	11.0	149.1	10.9
1975	161.2	9.1	160.3	7.5
1976	170.5	5.8	168.9	5.4
1977	181.5	6.5	180.4	6.8
1978	195.4	7.7	194.1	7.6
1979	217.4	11.3	218.8	12.7
1980	246.8	13.5	253.5	15.9
1981	272.4	10.4	277.1	9.3
1982	289.1	6.1	288.3	4.0

Source: U.S. Department of Labor, Bureau of Labor Statistics.

TABLE C-18
New Incorporations in Michigan, 1955-1982

Year	Profit	Nonprofit	Foreign (out-of-state)	Total
1955	4,619	1,094	379	6,092
1956	4,337	1,196	389	5,922
1957	3,842	1,391	461	5,694
1958	3,900	1,272	404	5,576
1959	4,812	1,209	527	6,548
1960	4,800	1,261	499	6,560
1961	4,788	1,312	497	6,597
1962	5,135	1,243	601	6,979
1963	5,102	1,241	528	6,871
1964	5,825	1,256	593	7,674
1965	6,152	1,286	627	8,065
1966	6,315	1,356	640	8,311
1967	6,341	1,361	715	8,417
1968	7,700	1,588	825	10,113
1969	9,586	1,767	1,064	12,417
1970	8,378	1,782	1,054	11,214
1971	8,270	1,993	1,082	11,345
1972	9,202	2,134	1,175	12,511
1973	9,709	1,878	1,093	12,680
1974	9,342	2,106	1,009	12,457
1975	9,996	2,138	926	13,060
1976	11,545	2,080	972	14,597
1977	13,273	2,082	956	16,311
1978	14,538	2,148	1,039	17,725
1979	18,654	2,217	1,062	21,933
1980	16,931	2,503	1,077	20,511
1981	17,139	2,288	1,277	20,704
1982	17,201	2,294	1,300	20,795

Source: Michigan Department of Commerce, Corporation Division.

TABLE C-19
Michigan Liquid Assets, 1970-1982
(Millions)

End of Year	Total	Demand Deposits[1]	Time Deposits[1]	Savings and Loan Shares	Credit Union Shares & Deposits
1970	$25,370.1	$ 7,092.3	$12,770.7	$ 4,193.4	$1,313.7
1971	28,743.7	7,841.7	14,413.3	5,001.7	1,487.0
1972	32,002.6	8,555.2	15,754.5	6,029.8	1,663.1
1973	34,991.7	9,127.5	17,210.3	6,747.8	1,906.1
1974	37,214.7	9,187.0	18,655.7	7,320.0	2,052.0
1975	39,987.8	9,116.7	19,950.6	8,625.5	2,295.0
1976	43,567.2	9,084.7	21,873.4	10,175.0	2,434.0
1977	48,881.0	10,143.9	24,137.0	11,761.8	2,838.3
1978	54,303.9	11,246.6	26,648.7	13,248.6	3,160.0
1979	58,025.3	10,951.3	29,098.7	14,444.3	3,531.0
1980	61,251.8	10,662.7	31,047.3	15,937.0	3,604.8
1981	62,260.0	9,673.9	34,190.8	15,934.0	3,700.0
1982[2]	65,168.2	9,060.0	36,500.0	15,408.2	4,200.0

[1]Individual, partnerships and corporate deposits only.

[2]Preliminary.

Source: Federal Deposit Insurance Corporation, the Michigan Credit Union League, and the Federal Home Loan Bank of Indianapolis.

TABLE C-20
U.S. Interest Rates, 1960-1982
(Percent per annum)

Period	U.S. Government Security Yields: 3-month Treasury Bills[1]	U.S. Government Security Yields: 10-Year Issues	Prime Commercial Paper (4-6 months)	High-Grade Municipal Bonds (Standard & Poor's)	Corporate Bonds (Moody's Aaa)
1960	2.928	NA	3.85	3.73	4.41
1961	2.378	NA	2.97	3.46	4.35
1962	2.778	NA	3.26	3.18	4.33
1963	3.157	NA	3.55	3.23	4.26
1964	3.549	NA	3.97	3.22	4.40
1965	3.954	NA	4.38	3.27	4.49
1966	4.881	NA	5.55	3.82	5.13
1967	4.321	NA	5.10	3.98	5.51
1968	5.339	NA	5.90	4.51	6.18
1969	6.677	NA	7.83	5.81	7.03
1970	6.458	NA	7.72	6.51	8.04
1971	4.348	NA	5.11	5.70	7.39
1972	4.071	6.21	4.69	5.27	7.21
1973	7.041	6.84	8.15	5.18	7.44
1974	7.886	7.99	9.84	6.09	8.57
1975	5.838	7.61	6.32	6.89	8.83
1976	4.989	7.42	5.34	6.49	8.43
1977	5.265	8.41	5.61	5.56	8.02
1978	7.221	9.44	7.99	5.90	8.73
1979	10.041	10.65	10.91[2]	6.39	9.63
1980	11.506	11.46	12.29	8.51	11.94
1981	14.077	13.91	14.76	11.23	14.17
1982	10.724	13.00	11.89	11.72	13.79

[1]Rate on new issues within period.

[2]Beginning November 1, 1979, data are for 6-months paper.

Source: *Economic Indicators*, Council of Economic Advisors, selected issues.

TABLE C-21
New Private Housing Units Authorized in Michigan SMSAs, 1977-1982

SMSA	1977	1978	1979	1980	1981	1982[1]
Ann Arbor	1,670	2,390	1,302	985	271	209
Battle Creek	845	781	831	742	219	240
Bay City	527	500	346	174	87	65
Detroit	24,672	26,409	20,050	9,824	5,460	4,744
Flint	3,282	3,277	2,281	1,244	631	313
Grand Rapids	4,563	5,832	4,123	2,627	1,909	1,486
Jackson	1,177	663	819	273	241	155
Kalamazoo-Portage	2,640	1,674	1,838	1,785	1,414	1,305
Lansing-East Lansing	3,800	3,455	3,986	2,206	1,711	783
Muskegon-Muskegon Heights	847	1,173	674	803	362	261
Saginaw	1,343	1,251	1,250	587	238	106

[1]Preliminary.

Source: "Housing Units Authorized by Building Permits and Public Contracts, "*Construction Reports*," series C40, U.S. Department of Commerce, Bureau of the Census, 1977-1981.

TABLE C-22
Motor Vehicle Registrations, 1956-1982
(Thousands)

Year	Michigan Automobiles	Michigan Trucks and Buses	Michigan Total	Michigan Percent Change in Total	U.S. Total Motor Vehicle Registrations[1]	Michigan as Percent of U.S.
1956	2,747	391	3,138	0.8	65,183	4.81
1957	2,823	390	3,213	2.4	67,125	4.79
1958	2,717	392	3,109	-3.2	68,297	4.55
1959	2,796	405	3,201	3.0	71,354	4.49
1960	2,893	413	3,306	3.3	73,869	4.48
1961	2,938	417	3,354	1.5	75,958	4.42
1962	3,026	429	3,455	3.0	79,173	4.36
1963	3,161	439	3,600	4.2	82,714	4.35
1964	3,294	465	3,759	4.4	86,301	4.36
1965	3,497	494	3,991	6.2	90,361	4.42
1966	3,516	508	4,024	0.8	93,962	4.28
1967	3,587	546	4,133	2.7	96,931	4.26
1968	3,734	583	4,317	4.5	100,885	4.28
1969	3,873	615	4,488	4.0	105,097	4.26
1970	3,918	651	4,569	1.8	198,375	4.22
1971	4,052	687	4,740	3.7	112,922	4.20
1972	4,265	745	5,010	5.7	118,506	4.23
1973	4,436	804	5,240	4.6	125,420	4.18
1974	4,536	865	5,401	3.1	129,938	4.16
1975	4,628	918	5,546	2.7	132,951	4.17
1976	4,726	975	5,701	2.8	138,549	4.11
1977	4,954	1,032	5,986	5.0	143,747	4.16
1978	5,124	1,121	6,245	4.3	148,778	4.20
1979	5,093	1,248	6,341	1.5	154,118	4.11
1980	5,246	1,242	6,488	2.3	155,890	4.16
1981	5,005	1,161	6,166	-5.0	158,457	3.89
1982[2]	4,945	1,143	6,088	-1.3	160,443	3.79

[1]This definition of motor vehicles includes only non-military automobiles, trucks, and buses.

[2]Estimate.

Source: *Motor Vehicle Facts and Figures*, Motor Vehicle Manufacturers of the U.S., Inc., selected issues.

TABLE C-23
New Passenger Car Sales in Michigan, 1964-1982[1]

Year	Number	Percent of U.S. Total
1964	525,901	6.52
1965	636,211	6.83
1966	571,363	6.34
1967	515,692	6.23
1968	596,485	6.34
1969	587,689	6.13
1970	479,224	6.13
1971	633,963	6.52
1972	646,146	6.57
1973	664,505	6.62
1974	513,129	5.89
1975	496,476	6.01
1976	606,979	6.22
1977	504,122	6.18
1978	669,700	6.12
1979	611,443	6.68
1980	449,487	5.13
1981	445,758	5.28
1982	374,643	4.83

[1]Retail sales as measured by new car registrations.

Source: *Automotive News*, Crain Automotive Group, Inc., selected issues. Figure for 1982 provided by R. L. Polk and Company. (Further reproduction of this number is prohibited.)

TABLE C-24
State Share of Passenger Car Assemblies, 1968-1982 Model Years
(Percent of Total)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
U.S. Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MICHIGAN	35.0	34.5	34.2	31.0	32.4	33.3	31.0	33.2	33.9	32.4	30.2	29.1	26.2	30.4	36.0
California	7.8	7.9	8.3	8.2	7.4	8.4	7.6	6.7	6.7	8.1	7.8	8.8	5.0	4.4	6.6
Delaware	4.8	4.5	6.1	4.5	4.6	4.4	3.8	3.5	4.9	4.0	5.6	5.4	6.3	7.9	7.0
Georgia	4.9	5.4	5.7	5.1	6.3	5.8	5.4	5.5	6.6	6.5	5.7	5.0	5.8	7.2	6.8
Illinois	4.5	4.5	3.3	5.3	4.8	4.4	4.0	4.6	3.5	4.5	5.0	5.6	5.8	6.1	5.7
Kansas	2.6	2.4	2.5	2.4	2.3	2.2	1.5	2.3	2.8	2.9	2.6	2.7	2.1	1.5	2.3
Kentucky	0.9	0.9	1.0	1.2	0.9	0.9	0.8	1.3	1.1	1.1	1.3	1.1	0.5	1.3	0.5
Maryland	2.4	2.3	2.7	1.9	2.2	2.3	2.9	3.3	3.1	2.6	2.4	2.6	2.0	1.6	2.0
Massachusetts	1.3	1.6	1.7	1.2	1.4	1.7	1.2	0.9	1.0	1.5	1.7	1.8	2.4	2.1	1.6
Minnesota	1.1	1.1	1.1	1.3	0.9	0.8	0.9	1.3	1.0	1.3	0.9	---	---	---	—
Missouri	10.1	10.5	11.2	11.2	9.8	10.1	11.2	9.8	9.2	11.1	11.9	11.1	8.2	7.9	7.9
New Jersey	5.6	5.6	5.5	6.7	7.1	6.3	6.5	6.5	6.8	6.6	6.1	6.5	7.1	5.6	5.3
New York	2.3	2.1	2.2	1.9	2.2	2.0	1.9	1.6	1.4	2.5	2.6	2.6	4.2	4.4	3.5
Ohio	7.2	7.5	6.4	8.8	9.6	9.0	10.8	10.4	8.7	7.3	9.8	8.9	9.5	4.3	5.9
Oklahoma	---	---	---	---	---	---	---	---	---	---	---	0.4	4.2	4.9	1.7
Pennsylvania	---	---	---	---	---	---	---	---	---	---	---	1.4	3.3	2.7	2.9
Texas	2.8	2.7	2.6	2.3	2.2	2.4	2.6	3.0	2.9	2.5	2.1	2.3	2.5	2.9	3.2
Virginia	0.9	0.7	0.8	0.6	0.5	0.5	0.3	---	---	---	---	---	---	---	—
Wisconsin	5.8	5.8	5.7	5.2	5.4	5.5	7.6	6.1	6.4	5.0	4.3	4.5	4.9	4.8	2.0

Source: *Ward's Automotive Reports*, Ward's Communications, Inc., selected issues.

TABLE C-25
U.S. Motor Vehicle Production, 1962-1982

	Passenger Cars	Trucks and Buses	Total Motor Vehicles
1962	6,943,334	1,253,977	8,197,311
1963	7,644,337	1,464,399	9,108,776
1964	7,745,492	1,562,368	9,307,860
1965	9,335,227	1,802,603	11,137,830
1966	8,604,712	1,791,587	10,396,299
1967	7,412,659	1,611,077	9,023,736
1968	8,848,620	1,971,790	10,820,410
1969	8,224,392	1,981,519	10,205,911
1970	6,549,058	1,732,799	8,281,857
1971	8,580,311	2,085,959	10,666,270
1972	8,828,205	2,482,503	11,310,708
1973	9,667,152	3,014,432	12,681,584
1974	7,324,504	2,746,538	10,071,042
1975	6,717,064	2,264,575	8,981,639
1976	8,497,660	2,999,703	11,497,363
1977	9,191,377	3,473,626	12,665,003
1978	9,176,635	3,722,567	12,899,202
1979	8,434,150	3,046,586	11,480,736
1980	6,375,516	1,632,826	8,008,342
1981	6,240,245	1,635,659	7,875,904
1982	5,105,636	1,886,044	6,991,680
1981: January	432,284	144,284	576,568
February	482,074	132,921	614,995
March	625,620	163,869	789,489
April	653,863	153,941	807,804
May	666,399	159,400	825,799
June	712,633	177,921	890,554
July	516,613	124,618	641,231
August	396,393	88,693	485,086
September	452,257	123,622	575,879
October	534,832	147,531	682,363
November	415,802	103,575	519,377
December	351,475	115,284	466,759
1982: January	280,179	127,201	407,380
February	325,243	128,013	453,256
March	481,578	196,192	677,770
April	490,014	184,990	675,004
May	515,913	190,832	706,745
June	568,332	213,209	781,541
July	455,558	161,912	617,470
August	342,815	142,385	485,200
September	425,533	146,274	571,807
October	428,929	144,795	573,724
November	405,510	133,689	539,199
December	386,032	116,552	502,584

Source: *Automotive News*, Crain Automotive Group, Inc., selected issues. *Motor Vehicle Facts and Figures*, Motor Vehicle Manufacturers Association of the U.S., Inc.

TABLE C-26
U.S. Automobile Sales, Truck Sales, Inventories, and Stock, 1956-1982
(Thousands)

Year	U.S. Automobile Sales (Retail)	Domestic Nameplate Sales	Foreign Import Sales	Foreign Import Sales As Percent of U.S. Auto Sales	End of Year Inventory	U.S. Stock of Autos (Still in use)	Truck Retail Sales	U.S. Stock of Trucks
1956	6,007	5,909	98	1.6	512	49,804	927	9,544
1957	5,961	5,754	207	3.5	652	51,432	879	9,776
1958	4,575	4,204	371	8.1	544	52,492	731	10,057
1959	6,094	5,408	614	10.1	567	55,087	928	10,532
1960	6,637	6,139	498	7.5	841	57,103	925	10,803
1961	5,934	5,556	379	6.4	855	58,854	908	11,043
1962	7,093	6,752	341	4.8	841	60,920	1,068	11,463
1963	7,744	7,344	400	5.2	935	63,493	1,230	11,902
1964	8,098	7,614	484	6.0	923	66,051	1,352	12,445
1965	9,328	8,760	568	6.1	1,264	68,940	1,534	13,126
1966	9,024	8,373	651	7.2	1,309	71,264	1,614	14,357
1967	8,342	7,573	769	9.2	1,133	72,968	1,519	14,988
1968	9,638	8,607	1,031	10.7	1,467	75,385	1,805	15,685
1969	9,584	8,466	1,118	11.7	1,464	78,495	1,929	16,586
1970	8,383	7,116	1,267	15.1	1,220	80,448	1,746	17,688
1971	10,249	8,676	1,573	15.3	1,447	83,137	2,009	18,462
1972	10,944	9,322	1,622	14.8	1,310	86,439	2,531	19,773
1973	11,441	9,670	1,770	15.5	1,600	89,805	3,029	21,412
1974	8,867	7,451	1,395	16.0	1,655	92,608	2,587	23,312
1975	8,636	7,050	1,589	18.4	1,424	95,241	2,351	24,813
1976	10,100	8,607	1,493	14.8	1,465	97,818	3,044	26,560
1977	11,178	9,104	2,071	18.5	1,731	99,904	3,486	28,222
1978	11,308	9,308	2,000	17.7	1,729	102,957	3,914	30,565
1979	10,651	8,325	2,326	21.9	1,767	104,677	4,110	32,583
1980	8,973	6,578	2,395	26.7	1,448	104,564	3,476	35,268
1981	8,531	6,206	2,325	27.3	1,471	105,839	2,252	36,069
1982	7,978	5,757	2,221	27.8	1,126	N.A.	2,559	N.A.

Source: *Automotive News*, Crain Automotive Group, Inc., selected issues. *Motor Vehicle Facts and Figures*, Motor Vehicle Manufacturers Association of the U.S., Inc.

TABLE C-27
U.S. and Michigan Motor Vehicle Industry Employment, Earnings, and Hours, 1956-1982

Year	MICHIGAN				UNITED STATES				Michigan Motor Vehicle Employment as Percent of U.S. Motor Vehicle Employment
	Number Employed (Thousands)	Average Weekly Earnings	Average Weekly Hours	Average Hourly Earnings	Number Employed (Thousands)	Average Weekly Earnings	Average Weekly Hours	Average Hourly Earnings	
1956	411.7	$ 97.68	40.4	$2.42	792.5	$ 96.82	41.2	$2.35	51.9
1957	387.7	100.47	39.6	2.54	769.3	100.61	40.9	2.46	50.4
1958	288.5	103.04	38.9	2.67	606.5	101.24	39.7	2.55	47.6
1959	303.4	115.60	40.7	2.84	692.3	111.38	41.1	2.71	43.8
1960	311.2	119.96	41.0	2.93	724.1	115.21	41.0	2.81	43.0
1961	268.4	117.18	39.3	2.98	632.3	114.69	40.1	2.86	42.4
1962	299.2	134.02	43.4	3.09	691.7	127.67	42.7	2.99	43.3
1963	315.8	141.68	43.9	3.23	741.3	132.68	42.8	3.10	42.6
1964	329.3	147.98	44.5	3.33	752.9	138.03	43.0	3.21	43.7
1965	364.5	159.85	46.2	3.46	842.7	147.63	44.2	3.34	43.3
1966	381.9	157.19	43.7	3.60	861.6	147.23	42.8	3.44	44.3
1967	361.8	155.29	41.6	3.73	815.8	144.84	40.8	3.55	44.3
1968	382.8	131.75	45.2	2.91	873.7	168.09	43.1	3.90	43.8
1969	398.7	178.74	42.1	4.25	911.4	170.56	41.6	4.10	43.7
1970	335.3	178.30	39.9	4.47	797.3	170.07	40.3	4.22	42.1
1971	353.6	209.54	41.6	5.04	842.1	194.46	41.2	4.72	42.0
1972	369.6	240.05	43.9	5.47	860.9	219.22	42.9	5.11	42.9
1973	401.0	258.07	44.8	5.76	955.3	238.06	43.6	5.46	42.0
1974	366.1	258.10	41.0	6.29	890.8	239.54	40.6	5.90	41.1
1975	321.2	286.98	41.7	6.88	774.1	262.68	40.6	6.46	41.5
1976	357.7	338.70	44.7	7.58	850.6	305.30	43.0	7.10	42.1
1977	386.5	382.46	45.0	8.50	947.3	345.40	44.0	7.85	40.8
1978	409.6	397.47	44.4	8.95	1,004.9	368.05	43.3	8.50	40.8
1979	392.7	411.80	41.6	9.90	990.4	372.37	41.1	9.06	39.7
1980	326.3	439.51	40.0	10.99	762.6	391.42	39.9	9.81	43.7
1981	324.2	490.51	40.7	12.05	783.9	450.31	40.9	11.01	41.4
1982[1]	295.4	526.58	40.7	12.94	689.7	469.80	40.5	11.60	42.8

[1]Preliminary.

Source: U.S. Department of Labor and Michigan Employment Security Commission.

TABLE C-28
U.S. Automobile Price Indices, Personal Consumption Expenditures and Installment Credit, 1956-1982

Year	Wholesale Price Index Motor Vehicles and Equipment (1967=100)	Consumer Price Index New Cars (1967=100)	Consumer Price Index Used Cars (1967=100)	Personal Consumption Expenditures Auto and Parts (Billions)	Automobile Installment Credit (Millions) Extended	Repaid	Total Consumer Credit-Auto Paper
1956	91.2	93.5	69.1	$ 15.8	$15,515	$14,555	$ 14,420
1957	95.1	98.4	77.4	17.2	16,465	15,545	15,340
1958	98.1	101.5	80.2	14.8	14,226	15,415	14,152
1959	100.3	105.9	89.5	18.9	17,779	15,579	16,420
1960	98.8	104.5	83.6	19.7	17,657	16,419	17,658
1961	98.6	104.5	86.9	17.8	16,029	16,552	17,135
1962	98.6	104.1	94.8	21.5	19,694	17,447	19,381
1963	97.8	103.5	96.0	24.4	22,126	19,254	22,254
1964	98.3	103.2	100.1	26.1	24,046	21,369	24,934
1965	98.5	100.9	99.4	30.0	27,227	23,543	28,619
1966	98.6	99.1	97.0	30.4	27,341	25,404	30,556
1967	100.0	100.0	100.0	30.1	26,667	26,499	30,724
1968	102.8	102.8	102.6	36.3	31,424	28,018	34,130
1969	104.8	104.4	103.1	38.7	32,354	29,882	36,602
1970	108.5	107.6	104.3	36.2	29,791	30,137	35,184
1971	114.7	112.0	110.2	45.4	34,873	31,393	38,664
1972	118.0	111.0	110.5	52.4	40,194	34,729	44,129
1973	119.2	111.1	117.6	57.1	46,453	39,452	51,130
1974	128.2	117.5	122.6	50.4	45,429	44,929	52,871
1975	144.6	127.6	146.4	55.8	51,413	48,406	55,879
1976	153.7	135.7	167.9	72.6	62,988	52,750	66,116
1977	163.7	142.9	182.8	84.8	72,888	59,652	82,991
1978	176.0	153.8	186.5	95.7	87,981	69,245	101,647
1979	190.4	166.0	201.0	96.6	93,901	79,186	116,362
1980	208.7	179.3	208.1	89.7	83,454	82,977	116,838
1981	237.6	190.2	256.9	98.6	94,404	84,809	126,431
1982	251.3	197.6	296.4	106.0[1]	91,700[1]	90,000[1]	127,700[1]

[1]Estimate.

Source: U.S. Department of Labor, Bureau of Labor Statistics; U.S. Department of Commerce, Bureau of Economic Analysis; and The Federal Reserve System, the Board of Governors.

TABLE C-29
U.S. Motor Vehicle Production and Auto Sales, Quarterly, 1974-1982
(Thousands)

Year: Quarter	U.S. Auto Production	U.S. Truck and Bus Production	Total Motor Vehicle Production	Domestic Auto Sales	Import Auto Sales	Total U.S. Auto Sales
1974: I	1,787	747	2,534	1,772	365	2,137
II	2,059	741	2,800	2,167	338	2,505
III	1,663	601	2,264	1,949	391	2,340
IV	1,816	658	2,474	1,562	301	1,863
1975: I	1,299	482	1,781	1,522	410	1,932
II	1,833	588	2,421	1,739	432	2,171
III	1,663	575	2,238	1,761	443	2,204
IV	1,922	620	2,542	2,028	304	2,332
1976: I	2,172	731	2,903	2,054	328	2,382
II	2,423	843	3,266	2,410	379	2,789
III	1,727	728	2,455	1,997	420	2,417
IV	2,176	697	2,873	2,145	367	2,512
1977: I	2,337	863	2,873	2,163	454	2,617
II	2,615	909	3,524	2,575	622	3,197
III	1,932	843	2,775	2,114	555	2,669
IV	2,307	858	3,165	2,253	440	2,693
1978: I	2,268	865	3,133	2,056	485	2,541
II	2,659	1,008	3,667	2,776	562	3,338
III	1,851	853	2,704	2,177	540	2,717
IV	2,398	996	3,394	2,299	413	2,712
1979: I	2,411	1,031	3,442	2,173	553	2,726
II	2,483	915	3,398	2,262	682	2,944
III	1,656	535	2,191	1,993	578	2,571
IV	1,884	565	2,449	1,892	512	2,404
1980: I	1,784	500	2,283	1,848	663	2,511
II	1,634	351	1,983	1,550	590	2,140
III	1,260	309	1,568	1,515	613	2,128
IV	1,698	476	2,174	1,665	529	2,194
1981: I	1,590	441	2,031	1,733	641	2,373
II	2,033	491	2,524	1,576	633	2,209
III	1,346	340	1,686	1,617	576	2,193
IV	1,302	401	1,703	1,280	475	1,755
1982: I	1,087	451	1,538	1,401	542	1,943
II	1,574	589	2,163	1,534	560	2,094
III	1,224	451	1,675	1,328	581	1,909
IV	1,220	395	1,615	1,494	538	2,032

Source: Motor Vehicle Manufacturers Association of the U.S. *Automotive News*, Crain Automotive Group, Inc., selected issues.

TABLE C-30
Rate Changes Granted to Regulated Utilities in 1982

TELEPHONE COMPANIES	
Chatham Telephone	$ 12,653
Climax Telephone	45,121
General Telephone of Michigan	12,043,000
Kingsley Telephone	27,747
Ontonagon County Telephone	85,917
Shiawassee Telephone	151,151
Upper Peninsula Telephone	68,576
Westphalia Telephone	34,176
Michigan Bell	72,263,000
Total	$ 84,731,341
ELECTRIC COMPANIES	
Alpena Power	$ 802,150
Consumers Power	153,620,714
Detroit Edison	194,811,512
Edison Sault Electric	1,715,416
Indiana & Michigan Electric	10,500,000
Lake Superior District Power	895,562
Northern Michigan Electric Cooperative	1,603,252
O & A Electric Cooperative	822,830
Oceana Electric Cooperative	184,500
Ontonagon County Rural Electric Association	130,176
Southeastern Michigan Rural Electric Cooperative	100,463
Upper Peninsula Power	3,531,064
Wisconsin Electric power	3,201,000
Total	$371,918,639
GAS COMPANIES	
Michigan Consolidated Gas	$105,007,000
Michigan Gas Utilities	2,675,000
Peninsular Gas	231,206
Southeastern Michigan Gas	4,583,724
Total	$112,496,930
STEAM COMPANY	
Consumers Power	$ 444,591
GRAND TOTAL	$569,591,501

Source: Michigan Department of Commerce, Public Service Commission.

TABLE C-31
Prices Received by Michigan Farmers, 1970-1982

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Corn (per bushel)	$ 1.32	$ 1.03	$ 1.49	$ 2.52	$ 2.91	$ 2.35	$ 2.38	$ 1.93	$ 2.05	$ 2.38	$ 2.66	$ 2.86	$ 2.27
Wheat (per bushel)	1.40	1.34	1.67	4.30	3.64	3.10	2.87	2.12	3.01	3.61	3.78	3.46	3.20
Oats (per bushel)	.70	.71	.84	1.35	1.65	1.40	1.47	1.50	1.32	1.36	1.72	2.09	1.82
Soybeans (per bushel)	2.84	3.05	4.60	5.73	6.28	4.50	5.51	6.71	6.16	6.77	6.58	6.71	5.68
Dry Beans (per cwt.)	9.70	11.50	9.70	27.30	14.80	29.30	18.69	16.51	16.88	16.48	20.97	30.08	19.38
Potatoes (per cwt.)	2.72	2.47	3.66	6.13	4.15	6.03	5.23	5.76	4.64	4.82	6.42	9.23	6.01
Hay (baled, per ton)	22.50	28.50	29.50	31.00	39.00	43.50	46.68	52.67	54.42	40.83	36.08	44.38	62.33
Hogs (per cwt.)	$22.90	$17.90	$25.50	$39.50	$35.80	$49.04	$44.10	$40.80	$47.87	$42.83	$39.38	$43.28	$54.15
Beef Cattle (per cwt.)	25.80	26.40	30.50	40.20	34.60	33.37	33.28	33.06	45.57	60.29	55.68	49.68	52.60
Veal Calves (per cwt.)	37.60	40.30	49.70	62.40	46.50	30.20	34.68	38.92	62.61	94.12	82.10	65.38	56.52
Lambs (per cwt.)	27.20	26.60	29.50	36.60	38.70	42.82	46.89	51.78	62.30	66.49	62.62	52.64	N.A.
Milk (wholesale, per cwt.)	5.81	5.96	6.17	7.18	8.20	8.57	9.85	9.66	10.49	12.08	13.17	13.85	13.65
Turkeys (per lb.)	.24	.24	.23	.36	.29	.30	.30	.35	.46	.46	.43	.41	N.A.
Eggs (per doz.)	.36	.27	.26	.50	.48	.46	.54	.49	.47	.50	.48	.54	.49
Wool (per lb.)	.37	.25	.29	.63	.37	.25	.47	.64	.65	.68	.70	.66	N.A.

Source: *Agricultural Prices*, U.S. Department of Agriculture, Crop Reporting Board. *Agriculture Across Michigan*, U.S. Department of Agriculture and Michigan Department of Agriculture.

TABLE C-32
Michigan Farm Income Components, 1966-1982
(Millions)

Year	Realized Gross Farm Income					Farm Production Expenses	Net Changes in Farm Inventories	Net Farm Income[2]
	Cash Receipts From Farm Marketings	Government Payments	Non-Money Income	Other Farm Income	Total			
1966	$ 876.9	$62.2	$104.8	$ 9.3	$1,053.2	$ 728.6	$-15.5	$309.0
1967	850.2	56.0	108.6	10.2	1,025.0	768.7	-18.6	237.7
1968	849.1	65.3	110.0	10.3	1,034.7	789.9	1.0	245.8
1969	888.2	73.4	117.1	10.5	1,089.1	799.5	6.0	295.6
1970	910.1	65.7	114.8	10.2	1,100.8	847.8	20.9	273.9
1971	974.3	52.5	116.5	12.0	1,155.3	885.4	-27.9	242.0
1972	1,039.1	61.2	126.7	12.4	1,239.3	936.0	58.4	361.7
1973	1,500.1	38.9	151.1	15.2	1,705.3	1,112.6	-91.7	500.9
1974	1,651.8	10.4	172.7	18.4	1,853.5	1,355.9	64.2	561.7
1975	1,647.7	13.3	184.9	22.9	1,868.8	1,437.0	58.2	489.9
1976	1,723.9	7.3	199.7	25.1	1,955.9	1,554.6	-35.2	366.1
1977	1,823.7	21.2	246.1	28.6	2,119.6	1,662.0	14.6	397.0
1978	2,126.8	45.5	254.3	31.6	2,458.2	1,870.6	-33.5	554.1
1979	2,361.5	15.6	296.8	40.6	2,714.6	2,225.4	98.4	587.6
1980[1]	2,693.6	10.7	339.9	42.3	3,086.5	2,611.9	40.9	515.4
1981[1]	2,835.3	17.3	N.A.	N.A.	N.A.	2,826.0	N.A.	473.5
1982[1]	2,894.3	N.A.	N.A.	N.A.	N.A.	2,924.9	N.A.	384.0

[1]Estimate.

[2]Net farm income reported by the U.S. Department of Agriculture does not always agree with that reported by the U.S. Department of Commerce, Bureau of Economic Analysis.

Source: U.S. Department of Agriculture, Economic Research Service.

TABLE C-33
Number of Farms, Average Size, and Land in Farms in Michigan, 1951-1982

Year	Number of Farms	Average Size (acres)	Land in Farms (acres)
1951	156,000	113	17,700,000
1952	151,000	116	17,500,000
1953	146,000	118	17,300,000
1954	135,000	123	16,600,000
1955	138,000	122	16,900,000
1956	135,000	120	16,600,000
1957	132,000	123	16,300,000
1958	127,000	126	16,000,000
1959	123,000	128	15,700,000
1960	118,000	131	15,400,000
1961	114,000	132	15,100,000
1962	110,000	135	14,800,000
1963	106,000	138	14,600,000
1964	102,000	141	14,400,000
1965	98,000	144	14,100,000
1966	95,000	146	13,900,000
1967	92,000	148	13,600,000
1968	89,000	149	13,300,000
1969	86,000	150	12,900,000
1970	84,000	151	12,700,000
1971	82,000	152	12,500,000
1972	81,000	152	12,300,000
1973	78,000	154	12,000,000
1974	76,000	154	11,700,000
1975	70,000	164	11,500,000
1976	70,000	163	11,400,000
1977	68,000	168	11,400,000
1978	66,000	173	11,400,000
1979	66,000	173	11,400,000
1980	66,000	173	11,400,000
1981	66,000	175	11,500,000
1982	65,000	177	11,500,000

Source: Michigan Department of Agriculture, based on U.S. Census of Agriculture.

TABLE C-34
U.S. and Michigan Resident Population,
July 1, 1950 - July 1, 1982
(Thousands)

Year	Michigan Population	U.S. Population	Michigan as a percent of U.S.
1950	6,407	151,868	4.22
1951	6,497	153,982	4.22
1952	6,650	156,393	4.25
1953	6,822	158,956	4.29
1954	7,066	161,884	4.36
1955	7,285	165,069	4.41
1956	7,465	168,088	4.44
1957	7,569	171,187	4.42
1958	7,667	174,149	4.40
1959	7,767	177,135	4.38
1960	7,834	179,975	4.35
1961	7,893	182,973	4.32
1962	7,933	185,738	4.27
1963	8,058	188,438	4.28
1964	8,187	191,095	4.28
1965	8,357	193,460	4.32
1966	8,512	195,501	4.35
1967	8,630	197,374	4.37
1968	8,696	199,312	4.36
1969	8,781	201,306	4.36
1970	8,901	203,805	4.37
1971	8,972	206,827	4.34
1972	9,025	209,284	4.31
1973	9,072	211,357	4.29
1974	9,109	213,342	4.26
1975	9,108	215,465	4.23
1976	9,117	217,563	4.19
1977	9,157	219,760	4.16
1978	9,202	222,095	4.14
1979	9,249	224,567	4.12
1980	9,262	226,505	4.09
1981	9,270	229,304	4.04
1982[1]	9,227	231,479	3.99

[1]Provisional estimates.

Sources: *Current Population Reports*, Series P-25, Nos. 304, 376, 380, 460, 468, Department of Commerce, Bureau of the Census. The figures for 1971 through 1979 were revised by U.S. Department of Commerce, Bureau of the Census. Figure for 1981 and 1982 is prepared by Michigan Department of Management and Budget.

Table C-35
Michigan Population by County, 1980-1982

	July 1, 1982 Preliminary[1]	April 1, 1980 Census	1980-82 Change		Components of Change			
			Number	Percent	Births[2]	Deaths[2]	Net Migration[3] Number	Net Migration[3] Percent
Michigan	9,227,327	9,262,078	-34,751	-0.38	317,779	169,031	183,499	-1.98
Alcona	9,923	9,740	183	1.89	245	273	211	2.17
Alger	9,018	9,225	-208	-2.25	342	235	-315	-3.41
Allegan	83,706	81,555	2,151	2.64	3,068	1,383	466	0.57
Alpena	32,341	32,315	26	0.08	1,119	617	482	2.97
Antrim	16,830	16,194	636	3.92	541	387	482	2.97
Arenac	15,225	14,706	519	3.53	515	373	377	2.56
Baraga	8,606	8,484	122	1.44	277	240	85	1.00
Barry	46,569	45,781	788	1.72	1,580	756	-37	-0.08
Bay	119,642	119,881	-240	-0.20	4,106	2,107	-2,239	-1.87
Benzie	11,005	11,205	-201	-1.79	390	270	-321	-2.86
Berrien	167,354	171,276	-3,923	-2.29	5,954	3,285	-592	-3.85
Branch	39,747	40,188	-441	-1.10	1,527	817	-1,151	-2.86
Calhoun	141,826	141,557	269	0.19	4,897	2,783	-1,845	-1.30
Cass	48,237	49,499	-1,262	-2.55	1,601	881	-1,982	-4.00
Charlevoix	19,658	19,907	-250	-1.25	753	435	-568	-2.85
Cheboygan	20,993	20,649	344	1.67	766	477	55	0.27
Chippewa	29,575	29,029	546	1.88	940	648	254	0.87
Clare	24,206	23,822	384	1.61	805	558	137	0.57
Clinton	55,364	55,893	-529	-0.95	2,012	682	-1,859	-3.33
Crawford	9,545	9,465	80	0.84	409	210	-120	-1.26
Delta	39,693	38,947	746	1.91	1,334	826	238	0.61
Dickinson	25,511	25,341	170	0.67	872	653	-50	-0.19
Eaton	88,870	88,337	533	0.60	2,816	1,166	-1,117	-1.26
Emmet	23,837	22,992	845	3.67	781	483	547	2.38
Genesee	446,610	450,449	-3,840	-0.85	16,626	7,331	-13,135	-2.90
Gladwin	20,535	19,957	578	2.89	636	452	394	1.97
Gogebic	19,613	19,686	-73	-0.37	523	632	36	0.18
Grand Traverse	56,607	54,899	1,708	3.11	2,118	1,005	595	1.08
Gratiot	39,836	40,448	-612	-1.51	1,387	883	-1,116	-2.76
Hillsdale	41,581	42,071	-491	-1.17	1,427	869	1,049	-2.49
Houghton	38,366	37,872	494	1.30	1,139	943	298	0.79

Table C-35 (Continued)
Michigan Population by County, 1980-1982

	July 1, 1982 Preliminary[1]	April 1, 1980 Census	1980-82 Change		Components of Change			
							Net Migration[3]	
			Number	Percent	Births[2]	Deaths[2]	Number	Percent
Huron	36,554	36,459	95	0.26	1,296	889	-313	-0.86
Ingham	275,046	275,520	-474	-0.17	9,967	3,647	-6,794	-2.40
Ionia	52,412	51,815	597	1.15	2,050	925	-529	1.02
Iosco	30,089	28,349	1,740	6.14	1,251	617	1,106	3.90
Iron	13,480	13,635	-155	-1.14	404	421	-138	-1.01
Isabella	54,547	54,110	437	0.81	1,610	677	-497	-0.92
Jackson	149,790	151,495	1,705	-1.12	4,934	2,812	-3,827	-2.53
Kalamazoo	217,609	212,378	5,231	2.46	7,287	3,264	1,208	0.57
Kalkaska	11,348	10,952	396	3.62	486	231	141	1.29
Kent	455,827	444,506	11,321	2.55	18,839	7,703	185	0.04
Keweenaw	2,022	1,963	59	3.01	48	88	99	5.04
Lake	8,335	7,711	624	8.09	254	260	630	8.16
Lapeer	70,242	70,038	204	0.29	2,568	1,063	-1,302	-1.86
Leelanau	14,681	14,007	674	4.31	442	266	498	3.55
Lenawee	89,274	89,948	-675	-0.75	3,094	1,600	-2,169	-2.41
Livingston	99,595	100,289	-694	-0.69	3,217	1,303	-2,608	-2.60
Luce	6,278	6,659	-381	-5.72	220	164	-437	-6.56
Mackinac	10,175	10,178	-3	-0.03	339	265	-77	-0.76
Macomb	694,166	694,600	-435	-0.06	21,502	10,698	-11,239	-1.62
Manistee	22,464	23,019	-555	-2.41	655	552	-658	-2.86
Marquette	74,959	74,101	858	1.16	2,965	1,060	-1,048	-1.41
Mason	26,811	26,365	446	1.69	969	632	109	0.41
Mecosta	37,604	36,961	643	1.74	1,005	514	152	0.41
Menominee	25,872	26,201	-329	-1.26	889	647	-571	-2.18
Midland	73,709	73,578	131	0.18	2,615	1,012	-1,472	-2.00
Missaukee	10,364	10,009	355	3.55	470	203	88	0.88
Monroe	131,172	134,659	-3,487	-2.59	4,381	1,992	-5,876	-4.36
Montcalm	49,064	47,555	1,509	3.17	1,814	992	687	1.45
Montmorency	7,376	7,492	-117	-1.55	240	210	-147	-1.95
Muskegon	157,045	157,589	-544	-0.34	5,820	3,096	-3,268	-2.07
Newaygo	36,363	34,917	1,446	4.14	1,249	725	922	2.64

Table C-35 (Continued)
Michigan Population by County, 1980-1982

	July 1, 1982 Preliminary[1]	April 1, 1980 Census	1980-82 Change		Components of Change			
			Number	Percent	Births[2]	Deaths[2]	Net Migration[3] Number	Net Migration[3] Percent
Oakland	1,012,028	1,011,793	235	0.02	31,469	16,133	-15,101	-1.49
Oceana	21,855	22,002	-148	-0.67	856	411	-593	-2.69
Ogemaw	16,406	16,436	-30	-0.18	610	421	-219	-1.33
Ontonagon	10,061	9,861	200	2.03	254	245	191	1.94
Osceola	19,429	18,928	501	2.65	731	374	144	0.76
Oscoda	7,128	6,858	270	3.93	248	191	213	3.10
Otsego	15,090	14,993	97	0.64	605	304	-205	-1.36
Ottawa	159,624	157,174	2,450	1.56	6,094	2,060	-1,584	-1.01
Presque Isle	14,149	14,267	-119	-0.83	498	355	-262	-1.83
Roscommon	17,829	16,374	1,455	8.89	531	531	1,435	8.76
Saginaw	224,726	228,059	-3,334	-1.46	8,366	3,798	-7,902	-3.46
St. Clair	138,887	138,802	85	0.06	4,625	2,701	-1,839	-1.32
St. Joseph	57,906	56,083	1,823	3.25	2,094	1,114	843	1.50
Sanilac	39,843	40,789	-946	-2.32	1,401	898	-1,449	-3.55
Schoolcraft	8,419	8,575	-157	-1.82	287	220	-224	-2.61
Shiawassee	69,665	71,140	-1,475	-2.07	2,548	1,116	-2,907	-4.09
Tuscola	55,886	56,961	-1,076	-1.89	2,003	1,000	-2,079	-3.65
Van Buren	67,355	66,814	541	0.81	2,563	1,351	-671	-1.00
Washtenaw	267,849	264,748	3,101	1.17	8,748	3,117	-2,530	-0.96
Wayne	2,282,298	2,337,891	-55,593	-2.38	77,890	50,948	-82,535	-3.53
Wexford	26,210	25,102	1,108	4.41	972	575	711	2.83

[1]The preliminary estimates are subject to change when more data become available.

[2]The numbers of births and deaths are derived from the reported vital statistics released by the Michigan Department of Public Health between 1980 and 1982. Three quarters of the 1980 resident births and deaths are used as those occurring between April 1, 1980 through December 31, 1980. One half of the 1982 estimated resident births and deaths are used as those occurring between January 1, 1982 and June 30, 1982.

[3]Net migration is the difference between net change and natural increase.

Source: Michigan Department of Management and Budget.

TABLE C-36
U.S. Population, Ranked by State, 1980

Rank	State	1980 Census	Rank	State	1980 Census
	United States	226,504,825			
1	California	23,668,902	26	Oklahoma	3,025,290
2	New York	17,558,072	27	Iowa	2,913,808
3	Texas	14,229,191	28	Colorado	2,889,964
4	Pennsylvania	11,862,895	29	Arizona	2,718,215
5	Illinois	11,426,518	30	Oregon	2,633,105
6	Ohio	10,797,630	31	Mississippi	2,520,638
7	Florida	9,746,324	32	Kansas	2,363,679
8	Michigan	9,262,078	33	Arkansas	2,286,435
9	New Jersey	7,364,823	34	West Virginia	1,949,644
10	North Carolina	5,881,766	35	Nebraska	1,569,825
11	Massachusetts	5,737,037	36	Utah	1,461,037
12	Indiana	5,490,224	37	New Mexico	1,302,894
13	Georgia	5,463,105	38	Maine	1,124,660
14	Virginia	5,346,818	39	Hawaii	964,691
15	Missouri	4,916,686	40	Rhode Island	947,154
16	Wisconsin	4,705,767	41	Idaho	943,935
17	Tennessee	4,591,120	42	New Hampshire	920,610
18	Maryland	4,216,975	43	Nevada	800,493
19	Louisiana	4,205,900	44	Montana	786,690
20	Washington	4,132,156	45	South Dakota	690,768
21	Minnesota	4,075,970	46	North Dakota	652,717
22	Alabama	3,893,888	47	Delaware	594,338
23	Kentucky	3,660,777	48	Vermont	511,456
24	South Carolina	3,121,820	49	Wyoming	469,557
25	Connecticut	3,107,576	50	Alaska	401,851

Source: U.S. Department of Commerce, Bureau of the Census.

TABLE C-37

Michigan School Enrollment, Grades K-12, 1975-1987[1]

Year		Kinder-garten	Change From Last Period	Grades 1-6	Change From Last Period	Grades 7-9	Change From Last Period	Grades 10-12	Change From Last Period	Grades K-12	Change From Last Period
1974-75	Public	155,987	2,163	914,108	-30,821	512,494	-3,542	473,860	-52	2,056,449	-32,252
	Non-Public	6,871	1,029	109,379	-5,365	54,662	-418	38,654	45	209,566	-4,709
	Total	162,858	3,192	1,023,487	-36,186	567,156	-3,960	512,514	-7	2,266,015	-36,961
1975-76	Public	159,981	3,994	884,786	-29,322	506,107	-6,387	475,334	1,474	2,026,208	-30,241
	Non-Public	8,825	1,934	107,936	-1,443	53,181	-1,481	38,750	96	208,692	-874
	Total	168,806	5,948	992,722	-30,765	559,288	-7,868	514,084	1,570	2,234,900	-31,115
1976-77	Public	152,790	-7,191	866,756	-18,030	496,190	-9,917	473,452	-1,882	1,989,188	-37,020
	Non-Public	9,937	1,112	109,287	1,351	52,943	-238	38,686	-64	210,853	2,161
	Total	162,727	-6,079	976,043	-16,679	549,133	-10,155	512,138	-1,946	2,200,041	-34,859
1977-78	Public	136,843	-15,947	852,650	-14,106	479,150	-17,040	460,862	-12,590	1,929,505	-59,683
	Non-Public	9,882	-55	108,107	-1,180	51,896	-1,047	38,795	109	208,680	-2,173
	Total	146,725	-16,002	960,757	-15,286	531,046	-18,087	499,657	-12,481	2,138,185	-61,856
1978-79	Public	129,592	-7,251	832,229	-20,421	457,555	-21,595	450,435	-10,427	1,869,811	-59,694
	Non-Public	10,166	284	105,507	-2,600	49,558	-2,338	38,249	-546	203,480	-5,200
	Total	139,758	-6,967	937,736	-23,021	507,113	-23,933	488,684	-10,973	2,073,291	-64,894
1979-80	Public	125,196	-4,396	808,981	-23,248	435,955	-21,600	434,526	-15,909	1,804,658	-65,153
	Non-Public	11,172	1,006	103,747	-1,760	48,244	-1,314	37,966	-283	201,129	-2,351
	Total	136,368	-3,390	912,728	-25,008	484,199	-21,914	472,492	-16,192	2,005,787	-67,504
1980-81	Public	122,425	-2,771	782,405	-26,576	418,929	-17,026	419,920	-14,606	1,743,679	-60,979
	Non-Public	11,950	778	104,341	594	47,575	-669	37,672	-294	201,538	409
	Total	134,375	-1,993	886,746	-25,982	466,605	-17,695	457,592	-14,900	1,945,217	-60,570
1981-82	Public	116,753	-5,672	745,796	-36,609	405,852	-13,077	399,929	-19,991	1,668,330	-75,349
	Non-Public	13,085	1,135	104,636	295	47,303	-272	37,121	-551	202,145	607
	Total	129,838	-4,537	850,432	-36,314	453,155	-13,349	437,050	-20,542	1,870,475	-74,742
1982-83[2]	Public	123,107	6,354	705,695	-40,101	404,297	-1,555	378,601	-21,328	1,611,700	-56,630
	Non-Public	13,786	701	103,762	-874	48,153	850	36,541	-580	202,242	97
	Total	136,893	7,055	809,457	-40,975	452,450	-705	415,142	-21,908	1,813,942	-56,533

TABLE C-37 Continued
Michigan School Enrollment, Grades K-12, 1975-1987[1]

Year	Kinder-garten	Change From Last Period	Grades 1-6	Change From Last Period	Grades 7-9	Change From Last Period	Grades 10-12	Change From Last Period	Grades K-12	Change From Last Period
1983-84[2] Public	123,450	343	678,392	-27,303	401,967	-2,330	361,909	-16,692	1,565,718	-45,982
Non-Public	13,824	38	104,456	694	48,635	482	36,168	-373	203,083	841
Total	137,274	381	782,848	-26,609	450,602	-1,848	398,077	-17,065	1,768,801	-45,141
1984-85[2] Public	128,475	5,025	664,121	-14,271	387,886	-14,081	353,139	-8,770	1,533,621	-32,097
Non-Public	14,387	563	106,045	1,589	48,000	-635	35,802	-366	204,234	1,151
Total	142,862	5,588	770,166	-12,682	435,886	-14,716	388,941	-9,136	1,737,855	-30,946
1985-86[2] Public	129,463	988	662,511	-1,610	362,022	-25,864	352,673	-466	1,506,669	-26,952
Non-Public	14,498	111	108,717	2,672	46,427	-1,573	36,379	577	206,021	1,787
Total	143,961	1,099	771,228	1,062	408,449	-27,437	389,052	111	1,712,690	-25,165
1986-87[2] Public	125,030	-4,433	667,020	4,509	336,078	-25,944	350,286	-2,387	1,478,414	-28,255
Non-Public	14,001	-497	111,397	2,680	45,650	-777	36,730	351	207,778	1,757
Total	139,031	-4,930	778,417	7,189	381,728	-26,721	387,016	-2,036	1,686,192	-26,498

[1]Excludes special education and part-time students.

[2]Projected enrollments are derived from Stanley E. Hecker and Frederick R. Ignatovich, Michigan Total, Public, and Non-public Membership Projections, Michigan State University, Department of Administration and Higher Education, September 17, 1982.

Source: Michigan Department of Education and Michigan State University, Department of Administration and Higher Education.

TABLE C-38
Michigan Elementary, Secondary, and Higher Education Student Enrollments, 1967-1983

School Year	Elementary[1] Public	Elementary[1] Private	Secondary[2] Public	Secondary[2] Private	Total K-12 Public	Total K-12 Private	Total K-12 Public and Private	Percent Change Public	Percent Change Private	Percent Change Public and Private
1966-67	1,186,590	212,284	847,392	141,160	2,033,982	353,444	2,387,426	3.3	-3.2	2.3
1967-68	1,195,151	202,150	884,553	136,317	2,079,704	338,467	2,418,711	2.2	-4.2	1.3
1968-69	1,200,083	190,609	922,836	121,693	2,122,919	312,303	2,435,222	2.1	-7.7	0.7
1969-70	1,205,193	171,413	959,193	124,896	2,164,386	296,309	2,460,695	2.0	-5.2	1.0
1970-71	1,200,624	200,344	978,121	74,084	2,178,745	274,428	2,453,173	0.7	-7.4	-0.3
1971-72	1,201,522	127,043	1,010,983	96,793	2,212,505	223,836	2,436,341	1.5	-18.4	-0.7
1972-73	1,168,731	126,431	1,024,539	94,811	2,193,270	221,242	2,414,512	-0.9	-1.2	-0.9
1973-74	1,132,474	121,584	1,025,401	93,718	2,157,875	215,302	2,373,177	-1.6	-2.7	-1.7
1974-75	1,103,770	117,023	1,033,493	93,324	2,137,263	210,347	2,347,610	-1.0	-2.3	-1.1
1975-76	1,082,797	117,713	1,045,120	91,805	2,127,917	209,518	2,337,435	-0.4	-0.4	-0.4
1976-77	1,019,546	160,445	1,062,390	54,653	2,081,936	215,098	2,297,034	-2.2	2.7	-1.7
1977-78	989,493	117,989	1,035,673	93,951	2,025,166	211,940	2,237,106	-2.7	-1.5	-2.6
1978-79	1,003,355	116,213	962,802	87,846	1,966,157	204,059	2,170,216	-2.9	-3.7	-3.0
1979-80	979,492	122,539	931,842	86,261	1,911,334	208,800	2,120,134	-2.8	2.3	-2.3
1980-81	904,830	116,291	838,849	85,247	1,743,679	201,538	1,945,217	-8.8	-3.5	-8.3
1981-82	862,549	117,721	805,781	84,424	1,668,330	202,145	1,870,475	-4.4	-3.8	-3.8

School Year	Public Higher Education Two-Year	Public Higher Education Four-Year	Public Higher Education Total	Public Higher Education Percent Change	Private Higher Education Total	Private Higher Education Percent Change	Total Higher Education	Percent Change
1966-67	69,496	176,487	245,983	11.5	49,462	3.3	295,445	10.1
1967-68	79,698	187,708	267,406	8.7	50,461	2.0	317,867	7.6
1968-69	95,965	198,419	294,384	10.1	50,777	0.6	345,161	8.6
1969-70	115,299	208,323	323,622	9.9	50,759	-0.0	374,381	8.5
1970-71	125,533	217,802	343,355	6.1	52,348	3.1	395,703	5.7
1971-72	132,059	220,165	352,224	2.6	52,928	1.1	405,152	2.3
1972-73	136,611	218,724	355,335	0.9	50,593	-4.4	405,928	0.2
1973-74	152,715	221,893	374,608	5.4	51,160	1.1	425,768	4.9
1974-75	173,643	229,627	403,270	7.7	55,273	8.0	458,543	7.7
1975-76	197,199	240,442	437,641	8.5	61,081	10.5	498,722	8.8
1976-77	187,622	236,831	424,453	-3.0	60,372	-1.2	484,825	-2.8
1977-78	186,876	236,618	423,494	-0.2	61,906	2.5	485,400	0.1
1978-79	187,649	236,035	423,684	0.1	62,810	1.5	486,494	0.2
1979-80	231,915	240,600	450,154	6.3	64,333	2.4	514,487	5.8
1980-81	244,971	242,999	487,970	8.4	66,216	2.9	554,186	7.7
1981-82	211,871	235,027	446,897	-8.4	68,406	3.3	515,303	-7.0
1982-83	213,204	226,385	439,589	-1.6	69,807	2.0	509,396	-1.1

[1]Includes grades K-6 and special education students.

[2]Includes grades 7-12 and part-time students.

Source: Michigan Department of Education and Michigan Department of Management and Budget.

TABLE C-39
Michigan Real and Personal Property Values, Taxes, and Tax Rates, 1952-1982
(Thousands)

Year	Assessed Valuation	County Equalized Valuations	State Equalized Valuations	Tax Levy		Average Tax Rate	
				Amount	Percent Change[1]	Mills	Percent Change[1]
1952	$11,531,377	$12,293,598	$13,634,300	$ 409,289	9.1	30.02	-7.9
1953	12,094,392	13,059,429	15,720,900	443,292	8.3	28.20	-6.1
1954	12,782,605	13,910,137	16,722,075	496,501	12.2	29.69	5.3
1955	13,481,826	15,505,027	17,551,275	563,871	13.5	32.13	8.2
1956	14,530,579	17,044,209	18,957,624	621,839	10.3	32.80	2.1
1957	15,452,973	18,511,832	21,602,319	716,464	14.1	32.89	0.3
1958	15,926,183	19,501,399	22,153,627	741,260	4.4	33.46	1.7
1959	16,126,254	19,883,366	22,438,384	786,649	6.2	35.06	4.8
1960	16,629,847	20,811,250	24,870,342	851,180	8.1	34.22	-2.4
1961	16,784,842	22,422,661	25,202,552	874,775	2.8	34.71	1.4
1962	16,984,435	22,802,732	25,182,559	891,307	1.8	35.39	2.0
1963	17,190,129	23,211,055	25,797,485	934,869	4.9	36.24	2.4
1964	17,694,863	24,053,734	26,350,184	991,234	6.0	37.62	3.8
1965	18,370,770	24,743,771	27,080,518	1,038,623	4.8	38.35	1.9
1966	20,483,070	27,905,044	28,206,349	1,129,224	8.7	40.03	4.4
1967	24,260,128	29,807,504	29,891,295	1,288,682	14.1	43.11	7.7
1968	27,702,241	32,012,879	32,041,173	1,474,994	14.5	46.03	6.8
1969	30,079,712	35,083,860	35,101,273	1,660,861	12.6	47.32	2.8
1970	32,954,101	38,553,759	38,551,597	1,874,291	12.9	48.62	2.7
1971	36,593,349	41,562,933	41,648,959	2,063,280	10.1	49.54	1.9
1972	39,814,568	44,347,772	44,487,728	2,183,224	5.8	49.07	-0.9
1973	42,648,458	47,492,752	47,612,674	2,420,403	10.9	50.84	3.6
1974	47,269,245	51,747,552	51,871,329	2,649,594	9.5	51.08	0.5
1975	51,148,731	55,802,269	56,800,875	2,903,906	9.6	51.12	0.1
1976	49,905,386	54,232,820	55,476,935	2,960,724	2.0	53.37	4.4
1977	53,867,947	59,305,512	59,512,999	3,207,096	8.3	53.89	0.9
1978	58,353,692	64,724,020	64,863,929	3,484,874	8.7	53.73	-0.3
1979	64,169,123	72,449,469	72,527,956	3,890,996	11.7	53.64	-0.2
1980	71,724,587	82,087,269	82,646,050	4,414,952	13.5	53.42	-0.4
1981	80,256,048	91,930,689	92,059,135	4,909,514	11.2	53.34	-0.2
1982[2]	95,623,614	96,742,630	98,210,063	5,232,632	6.6	52.90	-0.8

[1]From previous year.

[2]Estimate.

Source: Michigan Department of Treasury, State Tax Commission.

TABLE C-40
Michigan Real and Personal Property Values by Class, 1967-1982

Year[1]	Real Agriculture	Commercial	Industrial	Residential	Timber-Cut Over	Total
1967	1,948,819,877	3,387,509,107	3,579,844,740	13,768,088,054	121,466,492	22,805,728,270
1968	2,034,092,841	3,592,710,960	3,810,973,211	14,969,692,928	131,887,565	24,539,357,505
1969	2,259,750,633	3,895,805,295	4,026,509,087	16,769,575,874	142,832,730	27,094,473,619
1970	2,430,122,929	4,482,891,393	4,357,805,773	18,425,815,010	152,210,761	29,848,845,866
1971	2,631,643,039	4,920,726,764	4,732,051,343	20,121,981,797	166,389,114	32,572,791,557
1972	2,767,998,546	5,289,180,485	5,006,268,660	21,837,363,296	198,391,053	35,099,202,040
1973	2,966,596,460	6,095,838,694	5,257,318,114	23,132,331,200	230,441,780	37,682,526,248
1974	3,253,519,145	6,748,511,652	5,614,001,496	25,185,954,680	259,918,052	41,061,905,025
1975	3,680,674,772	7,251,964,454	5,824,753,617	27,679,961,125	289,724,453	44,727,078,421
1976	3,931,334,132	7,643,557,366	6,356,640,800	29,652,286,598	339,314,392	47,923,133,288
1977	4,410,266,132	8,077,760,508	6,585,112,846	32,150,563,868	381,970,088	51,605,673,442
1978	5,050,142,536	8,650,737,622	6,935,567,107	35,256,657,107	422,603,165	56,315,708,253
1979	5,766,430,668	9,581,045,520	7,502,276,607	39,954,252,345	466,549,835	63,270,554,975
1980	6,328,135,948	10,633,386,181	8,181,599,425	46,669,303,911	687,806,033	72,500,231,498
1981	6,851,013,534	11,556,372,899	9,124,359,043	53,018,207,770	529,173,435	81,492,349,275[2]
1982	7,378,223,333	12,186,372,328	9,418,002,354	57,491,186,325	514,930,615	87,187,419,816

Year	Personal Agriculture	Commercial	Industrial	Residential	Utility	Total
1967	1,018,373	1,490,963,980	4,262,523,175	27,726,088	1,299,049,485	7,081,281,101
1968	298,192	1,645,679,027	4,439,767,958	27,961,824	1,427,807,619	7,541,514,620
1969	134,764	1,786,309,802	4,670,662,761	37,587,110	1,612,062,552	8,106,756,989
1970	74,842	1,962,491,600	5,009,824,294	26,318,343	1,758,839,874	8,757,548,953
1971	94,686	2,060,693,881	5,128,931,506	27,807,650	1,847,296,876	9,064,824,599
1972	80,064	2,134,366,046	5,227,795,300	28,592,264	1,979,750,787	9,370,584,461
1973	128,156	2,328,516,373	5,417,026,545	32,384,384	2,143,642,638	9,921,698,096
1974	207,163	2,591,166,371	5,812,222,781	36,173,370	2,379,939,037	10,819,708,722
1975	204,494	2,844,516,638	6,551,055,713	39,285,910	2,652,494,463	12,087,557,218
1976	199,605	1,524,568,091	3,568,938,839	42,203,838	2,402,751,114	7,538,661,487
1977	261,790	1,621,573,625	3,702,836,647	44,002,603	2,528,988,905	7,897,663,570
1978	255,864	1,781,876,984	4,029,145,367	52,710,272	2,690,893,405	8,554,881,892
1979	279,328	1,971,939,226	4,304,285,432	54,087,484	2,926,809,276	9,257,400,746
1980	258,028	2,213,845,812	4,667,437,859	63,271,040	3,201,005,728	10,145,818,467
1981	490,114	2,458,616,916	4,753,688,798	61,383,795	3,292,605,897	10,566,785,520
1982	294,784	2,662,733,997	4,829,682,933	61,639,336	3,468,291,966	11,022,643,016

[1]Figures through 1970 represent 50 percent of true cash value. Figures from 1971 on represent state equalized value.

[2]The total for real property includes $413,222,594 for departmental property.

Source: Michigan Department of Treasury, State Tax Commission.

TABLE C-41
Michigan General Property Taxes by Local Unit of Government, 1960-1981
(Dollar Amounts in Thousands)

	School		City		County		Township		Village		Total	
Year	Amount	Percent of Total	Amount	Percent of Total	Amount	Percent of Total	Amount	Percent of Total	Amount	Percent of Total	Amount	Percent of Total
1960	434,146.0	51.0	250,634.4	29.4	146,079.6	17.2	12,840.1	1.5	7,479.5	0.9	851,179.6	100.0
1961	451,447.4	51.6	253,717.6	29.0	148,592.5	17.0	13,910.8	1.6	7,107.0	0.8	874,775.3	100.0
1962	465,724.7	52.3	254,522.7	28.6	149,178.6	16.7	14,697.9	1.6	7,183.0	0.8	891,306.9	100.0
1963	498,052.4	53.3	260,411.0	27.8	153,274.8	16.4	15,773.4	1.7	7,357.4	0.8	934,869.0	100.0
1964	534,370.4	53.9	265,713.7	26.8	166,548.3	16.8	16,978.0	1.7	7,623.8	0.8	991,234.2	100.0
1965	571,091.1	55.0	269,558.3	26.0	172,293.6	16.6	19,024.5	1.8	6,655.5	0.6	1,038,623.0	100.0
1966	636,209.7	56.3	282,974.0	25.1	181,355.7	16.1	21,743.5	1.9	6,941.4	0.6	1,129,224.3	100.0
1967	750,348.5	58.2	314,664.2	24.4	189,037.4	14.7	26,793.6	2.1	7,838.3	0.6	1,288,682.0	100.0
1968	898,866.9	60.9	339,445.3	23.0	199,504.7	13.5	28,703.2	2.0	8,474.1	0.6	1,474,994.2	100.0
1969	1,032,700.1	62.2	368,264.1	22.2	216,840.8	13.1	33,868.7	2.0	9,187.6	0.5	1,660,861.3	100.0
1970	1,167,313.3	62.3	417,562.7	22.3	240,246.9	12.8	38,954.4	2.1	10,214.2	0.5	1,874,291.5	100.0
1971	1,293,298.2	62.7	455,499.5	22.1	259,503.5	12.6	43,820.7	2.1	11,158.2	0.5	2,063,280.1	100.0
1972	1,367,523.3	62.6	478,665.4	21.9	276,349.4	12.7	47,966.9	2.2	12,719.4	0.6	2,183,224.4	100.0
1973	1,543,161.8	63.8	515,281.2	21.3	294,461.2	12.1	53,656.6	2.2	13,841.8	0.6	2,420,402.6	100.0
1974	1,725,399.0	65.1	525,884.2	19.8	319,716.8	12.1	62,529.7	2.4	16,064.2	0.6	2,649,593.8	100.0
1975	1,899,787.4	65.4	564,565.6	19.4	347,099.5	12.0	74,693.5	2.6	17,759.6	0.6	2,903,905.6	100.0
1976	1,951,535.5	65.9	571,117.9	19.3	341.809.9	11.5	78,555.2	2.7	17,705.1	0.6	2,960,723.6	100.0
1977	2,141,067.6	66.8	586,803.2	18.3	369,748.3	11.5	90,448.4	2.8	19,028.3	0.6	3,207,095.8	100.0
1978	2,342,118.9	67.2	620,979.0	17.8	400,217.0	11.5	100,893.4	2.9	20,665.5	0.6	3,484,873.8	100.0
1979	2,622,639.0	67.4	677,378.3	17.4	447,480.4	11.5	118,691.2	3.1	23,189.3	0.6	3,889,378.1	100.0
1980	3,009,469.3	68.2	736,984.7	16.7	504,459.5	11.5	134,301.8	3.0	26,162.5	0.6	4,411,377.8	100.0
1981	3,372,394.3	68.8	786,309.9	16.0	554,531.7	11.3	156,528.4	3.2	28,622.1	0.6	4,898,386.4	100.0

Source: Michigan Department of Treasury, State Tax Commission.

TABLE C-42
Michigan School Property Taxes, 1960-1981
(Dollar Amounts in Thousands)

Year	Operating			Debt and Building and Site			Total School Taxes		
	Amount	Percent of Total School Taxes	Millage Rate	Amount	Percent of Total School Taxes	Millage Rate	Amount	Percent of Total Property Taxes	Millage Rate
1960	322.184.3	74.2	12.96	111,961.7	25.8	4.50	434,146.0	37.9	17.46
1961	342,556.0	75.9	13.59	108,891.4	24.1	4.32	451,447.4	39.2	17.91
1962	363,570.0	78.1	14.44	102,154.7	21.9	4.05	465,724.7	40.8	18.49
1963	398,223.4	80.0	15.44	99,829.0	20.0	3.87	498,052.4	42.6	19.31
1964	433,945.3	81.2	16.47	100,425.1	18.8	3.81	534,370.4	43.8	20.28
1965	466,697.7	81.7	17.23	104,393.4	18.3	3.86	571,091.1	44.9	21.09
1966	524,235.6	82.4	18.59	111,974.1	17.6	3.97	636,209.7	46.4	22.56
1967	629,330.8	83.9	21.05	121,017.7	16.1	4.05	750,348.5	48.8	25.10
1968	761,094.8	84.7	23.75	137,772.1	15.3	4.30	898,866.9	51.6	28.05
1969	868,152.4	84.1	24.73	164,547.7	15.9	4.69	1,032,700.1	52.2	29.42
1970	989,877.6	84.8	25.68	177,435.7	15.2	4.60	1,167,313.3	52.8	30.28
1971	1,101,358.7	85.2	26.44	191,939.5	14.8	4.61	1,293,298.2	53.3	31.05
1972	1,171,356.3	85.7	26.33	196,167.0	14.3	4.41	1,367,523.3	53.6	30.74
1973	1,317,419.4	85.4	27.67	225,742.4	14.6	4.74	1,543,161.8	54.4	32.41
1974	1,494,394.3	86.6	28.81	231,004.6	13.4	4.45	1,725,399.0	56.4	33.26
1975	1,663,951.6	87.6	29.30	235,835.8	12.4	4.15	1,899,787.4	57.3	33.45
1976	1,702,285.7	87.2	30.69	249,249.8	12.8	4.49	1,951,535.5	57.5	35.18
1977	1,891,472.6	88.3	31.78	249,595.0	11.7	4.20	2.141,067.6	66.8	35.98
1978	2,072,999.5	88.5	31.96	269,119.4	11.5	4.15	2,342,118.9	67.2	36.11
1979	2,339,301.7	89.2	32.25	283,337.3	10.8	3.90	2,622,639.0	67.4	36.15
1980	2,710,253.0	90.1	32.82	299,216.4	9.9	3.62	3,009,469.3	68.2	36.44
1981	3,077,112.0	91.2	33.52	295,282.4	8.8	3.22	3,372,394.3	68.8	36.74

Source: Michigan Department of Treasury, State Tax Commission.